SONY

COLOR VIDEO CAMERA

SSC-DC593
SSC-DC593P
SSC-DC598P

SERVICE MANUAL

1st Edition

DynaView

⚠警告

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お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

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Manual Structure

Purpose of this manual

This manual is the Service Manual of the color video camera SSC-DC593/DC593P/DC598P.
This manual contains the service overview, circuit descrip-tion, adjustments, spare parts, semiconductor pin assignments, block diagrams, schematic diagrams and board layouts.

Related manuals

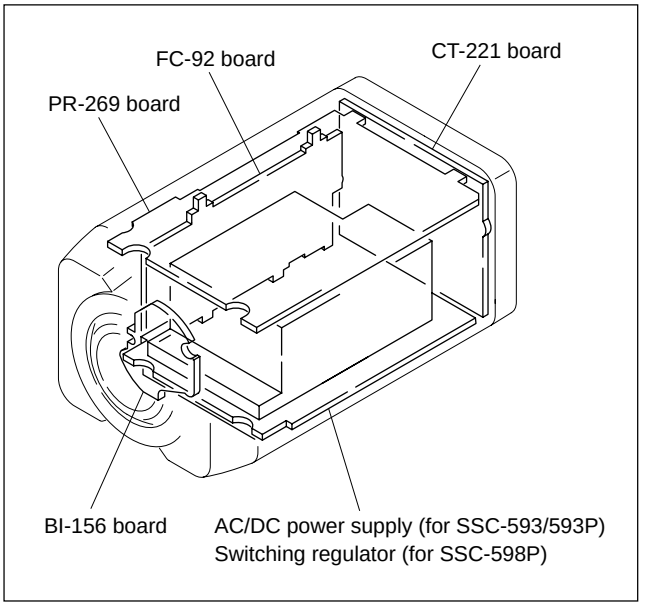
In addition to this Service Manual, the following manuals are provided for this unit.

- **Operating Instructions**
  (Supplied with the SSC-DC593/DC593P/DC598P)
  This manual is required for the proper operation and application of this unit.
  Part number: 3-704-749-11

- **“Semiconductor Pin Assignments” CD-ROM (Available on request)**
  This “Semiconductor Pin Assignments” CD-ROM allows you to search for semiconductors used in B&P Company equipment.
  Semiconductors that cannot be searched for on this CD-ROM are listed in the service manual for the corresponding unit. The service manual contains a complete list of all semiconductors and their ID Nos., and thus should be used together with the CD-ROM.
  Part number: 9-968-546-XX

Section 1
Service Overview

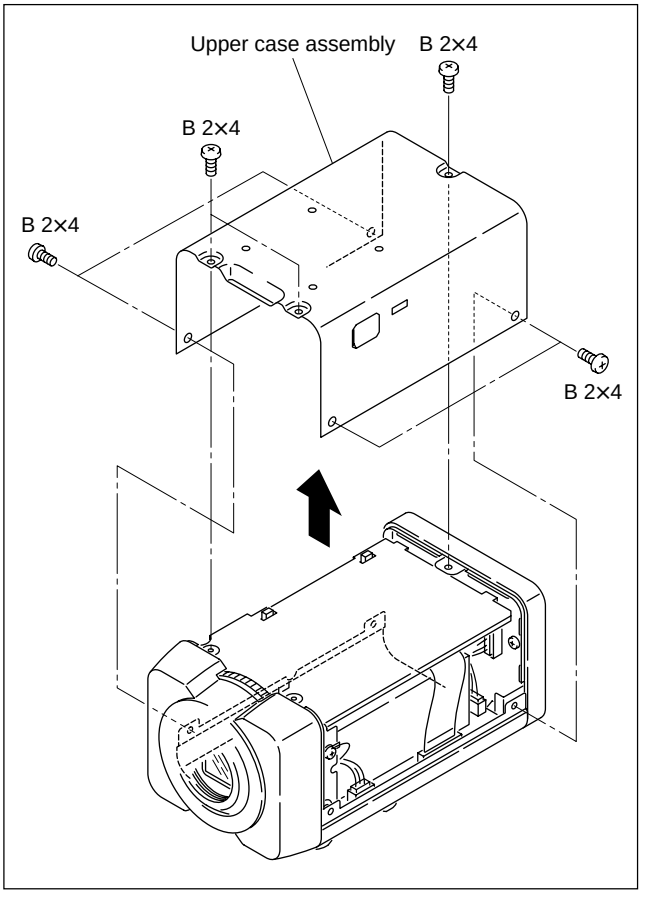
1-1. Board Location



1-2. Installation and Removal of Cabinet

1-2-1. Upper Case

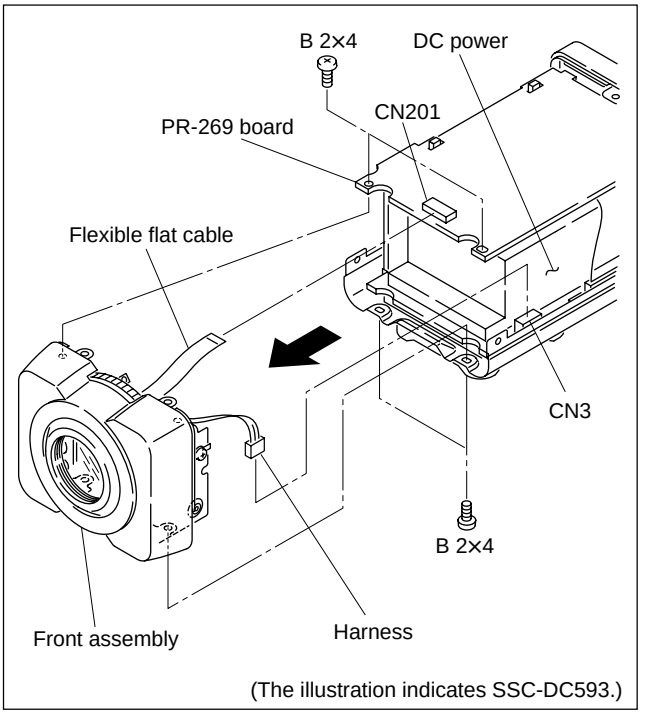
1. Remove the seven screws, then remove the upper case in the direction indicated by the arrow.



2. Attach the upper case in the reverse order of step 1.

1-2-2. Front Assembly

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the four screws, then remove the front assembly in the direction indicated by the arrow.
3. Disconnect one flexible flat cable from the connector (CN201) on the PR-269 board.
4. Disconnect one harness from the connector (CN3) on the AC/DC power supply.



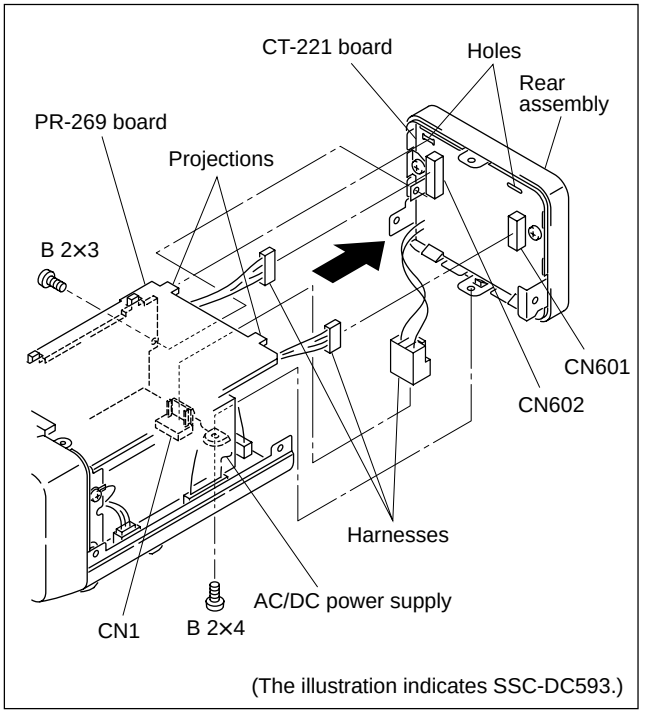
(The illustration indicates SSC-DC593.)

5. Attach the front assembly in the reverse order of steps 1 to 4.

1-2-3. Rear Assembly

For SSC-DC593/DC593P

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove one screw (B 2×3) and one screw (B 2×4), then remove the rear assembly in the direction indicated by the arrow.
3. Disconnect the three harnesses from the connector (CN1) on the AC/DC power supply and the connectors (CN601 and CN602) on the CT-221 board.



(The illustration indicates SSC-DC593.)

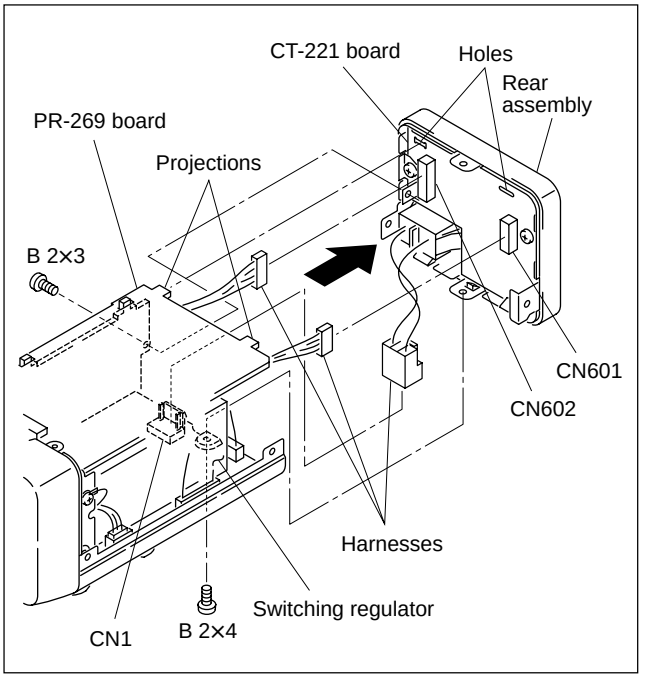
4. Attach the rear assembly in the reverse order of steps 1 to 3.

Note

When attaching the rear assembly, align the two projections of the PR-269 board with the two holes of the CT-221 board and attach it securely.

For SSC-DC598P

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove one screw (B 2×3) and one screw (B 2×4), then remove the rear assembly in the direction indicated by the arrow.
3. Disconnect the three harnesses from the connector (CN1) on the switching regulator and the connectors (CN601 and CN602) on the CT-221 board.



4. Attach the rear assembly in the reverse order of steps 1 to 3.

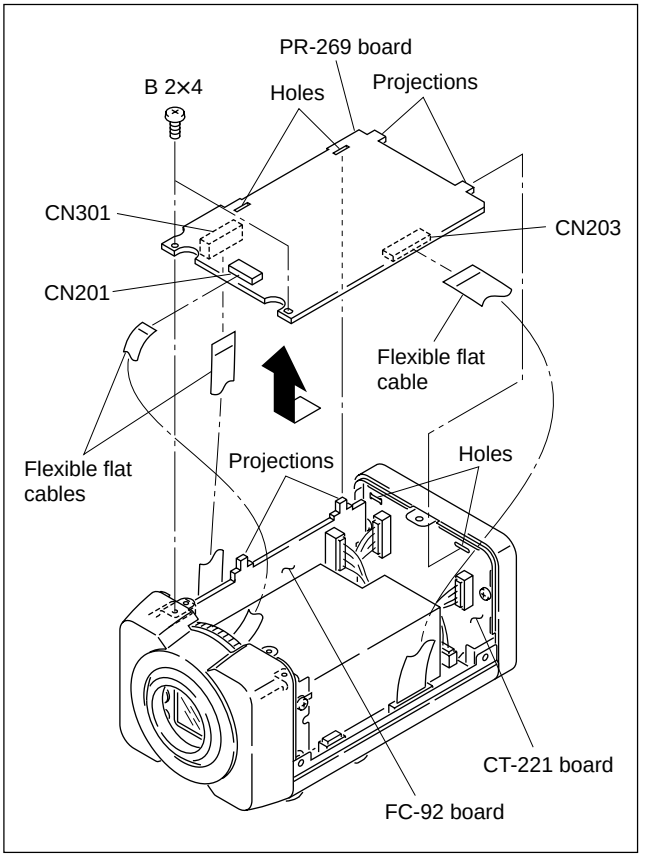
Note

When attaching the rear assembly, align the two projections of the PR-269 board with the two holes of the CT-221 board and attach it securely.

1-3. Installation and Removal of Board

1-3-1. PR-269 Board

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the two screws, then remove the PR-269 board in the direction indicated by the arrow.
3. Disconnect the three flexible flat cables from the connectors (CN201, CN203 and CN301) on the PR-269 board.



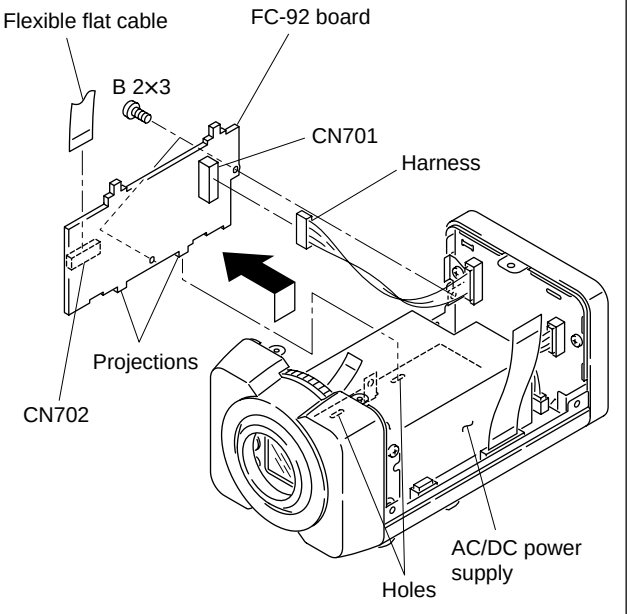
4. Install the PR-269 board in the reverse order of steps 1 to 3.

Note

When installing the PR-269 board, align the two projections of the PR-269 board with the two holes of the CT-221 board and the two projections of the FC-92 board with the two holes of the PR-269 board, and install it securely.

1-3-2. FC-92 Board

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the PR-269 board. (Refer to Section 1-3-1)
3. Remove the two screws, then remove the FC-92 board in the direction indicated by the arrow.
4. Disconnect one harness from the connector (CN701) and one flexible flat cable from the connector (CN702) on the FC-92 board.



(The illustration indicates SSC-DC593.)

5. Install the FC-92 board in the reverse order of steps 1 to 4.

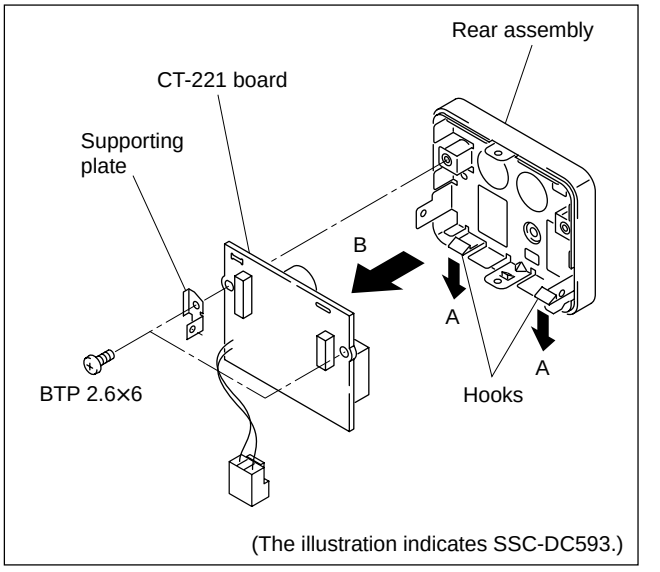
Note

When installing the FC-92 board, align the two projections of the FC-92 board with the two holes of the AC/DC power supply and attach it securely.

1-3-3. CT-221 Board

For SSC-DC593/DC593P

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the rear assembly. (Refer to Section 1-2-3)
3. Remove the two screws, then remove the supporting plate.
4. Expand the two hooks of the rear assembly in the direction indicated by the arrow A, then remove the CT-221 board in the direction indicated by the arrow B.

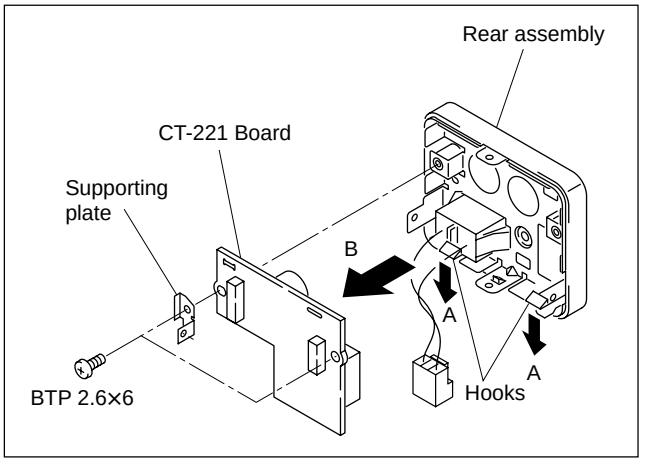


(The illustration indicates SSC-DC593.)

5. Install the CT-221 board in the reverse order of steps 1 to 4.

For SSC-DC598P

1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the rear assembly. (Refer to Section 1-2-3)
3. Remove the two screws, then remove the supporting plate.
4. Expand the two hooks of the rear assembly in the direction indicated by the arrow A, then remove the CT-221 board in the direction indicated by the arrow B.



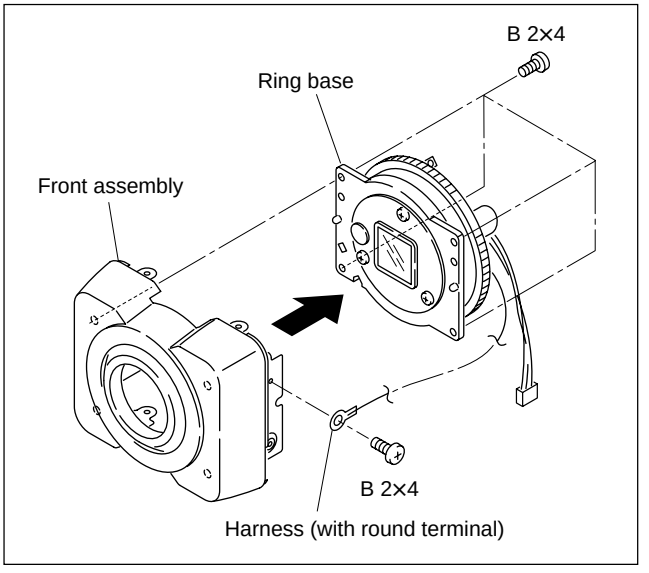
5. Install the CT-221 board in the reverse order of steps 1 to 4.

1-4. Motor Assembly/Optical Shutter Block/Installation and Removal of CCD Assembly

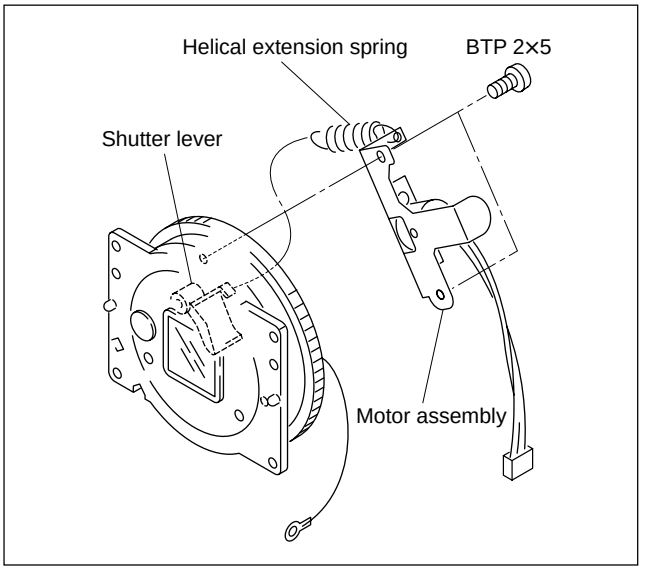
Note

When removing the ring, be careful with the helical compression spring because it may pop up.

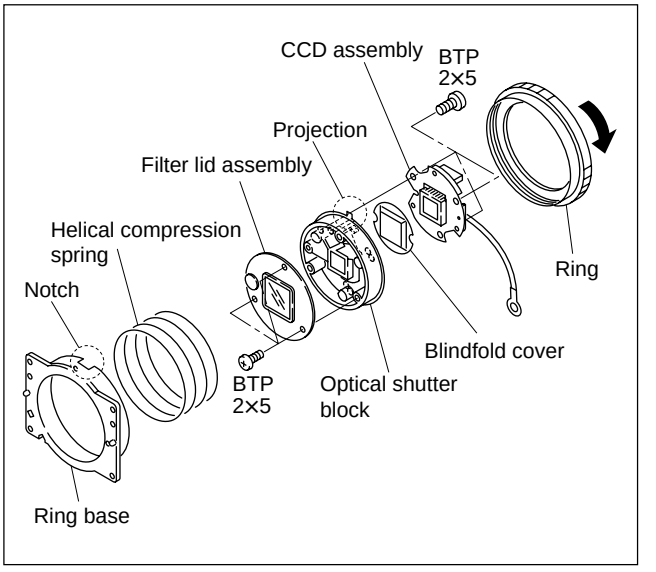
1. Remove the upper case. (Refer to Section 1-2-1)
2. Remove the front assembly. (Refer to Section 1-2-2)
3. Remove one screw, then disconnect the harness (with round terminal).
4. Remove the four screws, then remove the ring base.



5. Remove the helical extension spring from the shutter lever.
6. Remove the two screws, then remove the motor assembly.



7. Rotate the ring in the direction indicated by the arrow, then remove the helical compression spring and optical shutter block from the ring base.
8. Remove the three screws from the shutter block assembly, then remove the filter lid assembly.
9. Remove the three screws from the shutter block assembly, then remove the blind cover and CCD assembly.



10. Attach the CCD assembly, optical shutter block and motor assembly in the reverse order of steps 1 to 9.

Note

When attaching the optical shutter block, align the projection of the optical shutter block with the ring base notch and attach it.

Section 2
Circuit Description

2-1. BI-156 Board

The output signal (at pin 8 of IC101) from a CCD imager (IC101) is passed through a buffer (consisting of Q102 and Q101) and output from pin 12 of IC101 to the PR-269 board. H1, H2, V1, V2, V3, and V4 pulses are a CCD drive pulse supplied from the PR-269 board.

2-2. PR-269 Board

2-2-1. Main Signal Processing Circuit

The CCD-OUT signal (at pin 12 of CN201) output from the BI-156 board is input to pin 30 of IC201 for CDS (Correlative Double Sampling). Moreover, the CCD-OUT signal is amplified using an AGC circuit. The 10-bit data (at pins 3 to 12 of IC201) of an A/D-converted A/D output signal is input to wide dynamic signal processing DSP (pins 1, 2, and 5 to 12 of IC203). In DSP, an exposure signal is simultaneously processed for a long or short time and output as 10-bit data (at pins 37 to 43, and 46 to 48 of IC203). The output signal is then input to DSP CORE signal processing circuit IC204 (pins 55 to 64 of IC204). After the input signal is digital-processed in IC204, it is converted from digital to analog so as to produce an analog Y/C output signal (Y signal at pin 12 of IC204 and C (chroma) signal at pin 13). The Y/C output signal is passed through filters (FL202 for Y, FL201 for C), respectively. After that, the signal is added and output through an amplifier (consisting of IC207 and IC296) from pins 15 and 16 of CN203.

2-2-2. Microcomputer's Peripheral Circuit

The parameters of a digital signal processing circuit (consisting of IC203 and IC204) are set using a microcomputer (IC304). The parameters are partially stored in E^2PROM (IC306). The analog data control for the peripheral circuit is performed in the form in which the digital data from a microcomputer is passed through a D/A converter (IC301).

2-2-3. CCD Drive Pulse Signal Circuit

The CCD drive pulse signal circuit generates a CCD horizontal/vertical drive pulse and sample & hold pulse using TG (IC202) to which a main clock of 57 MHz is input. The sync signal sent to TG is obtained from SG in IC204.

2-2-4. External Sync Circuit

This camera is compatible with VS synchronization and MPX-VD synchronization (SSC-DC690) or LL synchronization (SSC-DC593/593P/598P).

VS: The sync source VS signal from pin 13 of CN203 is clamped using IC205 and then input to pin 34 of IC204 so as to constitute VReset/H-PLL. The H-phase comparison output signal at pin 23 of IC204 is passed through a low-pass filter (LPF) around IC503 and reflected on internal master LC-type VCO (around IC508). Synchronization is detected using IC204.

LL: The V pulse (power frequency sync pulse) from pin 13 of CN203 is input to pin 35 of IC204 and V-reset inside IC. The V pulse and an internal VD pulse constitute PLL. The V-phase comparison output signal (at pin 23 of IC204) is passed through a low-pass filter around IC503 and reflected on internal master LC-type VCO (around IC508).

MPX-VD: The sync source VD signal separated from the superimposition line in a DC-DC converter is obtained from pin 13 of CN203. After the signal is waveform-shaped around IC210, it is input to pin 35 of IC204 and V-reset inside IC. The V pulse and an internal VD pulse constitute PLL. The V-phase comparison output signal (at pin 23 of IC204) is passed through a low-pass filter around IC503 and reflected on internal master VCXO (around IC504).

2-2-5. DC Servo Circuit

The DC servo circuit controls the drive signal (at pin 1 of IC402) for auto iris lens driving from a microcomputer (IC304) through EVR (IC301).

2-2-6. Motor Drive Circuit

The motor drive circuit controls a stepping motor-driven driver (IC309) from microcomputer IC304 so as to switch the infrared cut-off filter and glass placed in front of CCD.

2-2-7. Character Generator Circuit

The character generator circuit controls character signal B (IC307) for menu display from microcomputer IC304.

2-3. FC-92 Board

2-3-1. RS-485 Communication Circuit

The RS-485 communication circuit mainly consists of IC701.

2-3-2. Function Selection Switches

An address DIP switch (S706) for RS-485 communication and menu tactile switches (S701 to S705) are provided.

2-3-3. I/O Circuit

The I/O circuit sends the external I/O signal of CN701, connected with the CT-221 board on the rear panel, through a floating circuit (around PH703).

2-3-4. CT-221 Board

The CT-221 board mounts a terminal board, connector board, and fuse. (The fuse is mounted only on the SSC-DC690.)

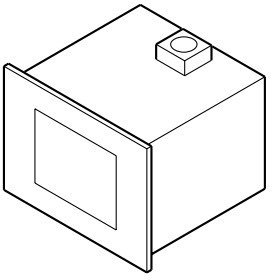
Section 3
Adjustment

3-1. Preparations

3-1-1. Adjusting Fixtures and Measurement Equipment

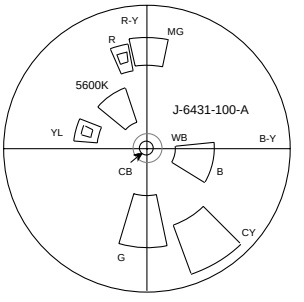
J-6029-140-B	Pattern Box (For PTB-500)
J-6431-850-A	Pattern Box (For PTB-700)

• Light source for adjustment chart

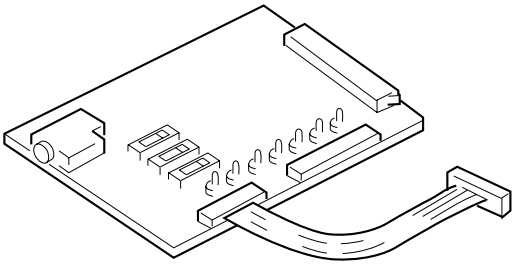


J-6432-100-A	Vectorscope scale

• For color reproduction adjustment
This scale is printed on the back cover paper.



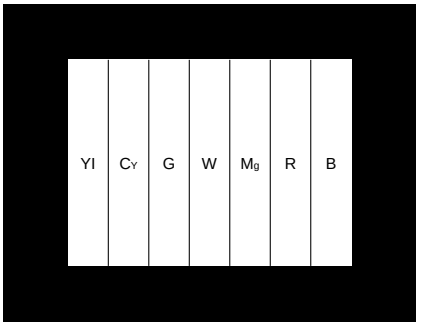
J-6432-830-A	Adjustment commander relay tool



- ND Filter
  ND25 (25%) 50 mm square (manufactured by Kenko)
  ∗ Overlap the two sheets of filter to set the transmittance at 6.25%.

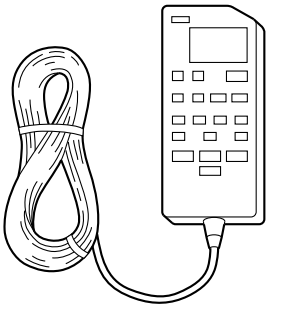
J-6029-250-A	Color bar chart (For PTB-500)
J-6027-100-A	Color bar chart (For PTB-700)

• For color reproduction adjustment



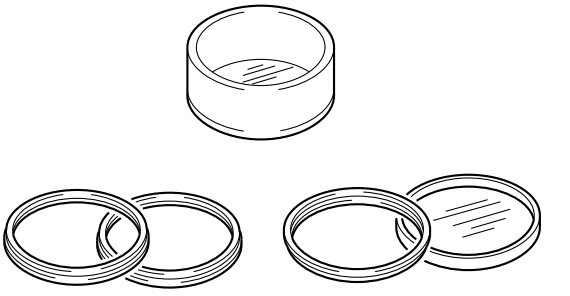
J-6082-053-B	Camera adjustment commander

• Partial remodeling of RM-95



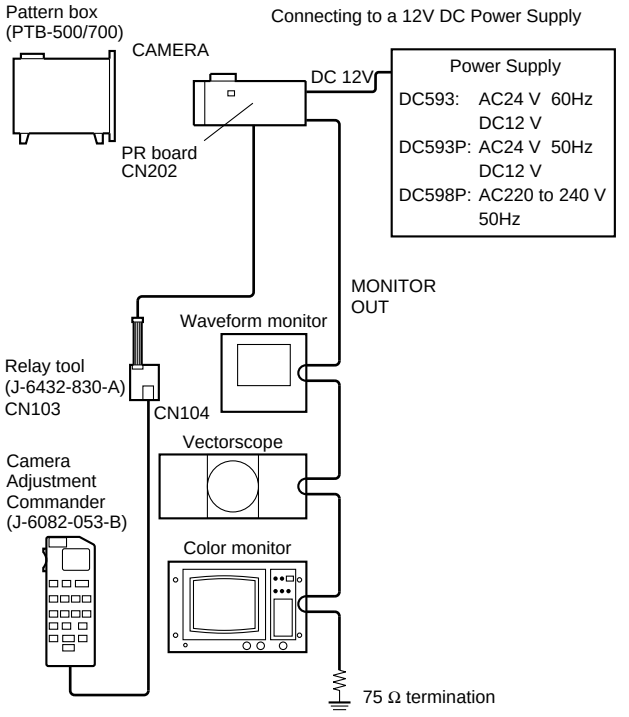
J-6080-058-A	Color temperature correction filter (C14 filter)

• Used for checking after adjustment.

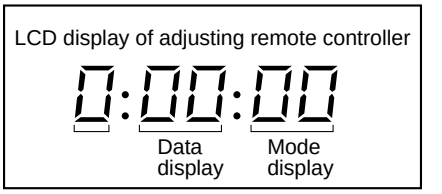


- Oscilloscope
- Frequency counter
- Digital voltmeter
- Vectorscope
- Waveform monitor
- Color monitor

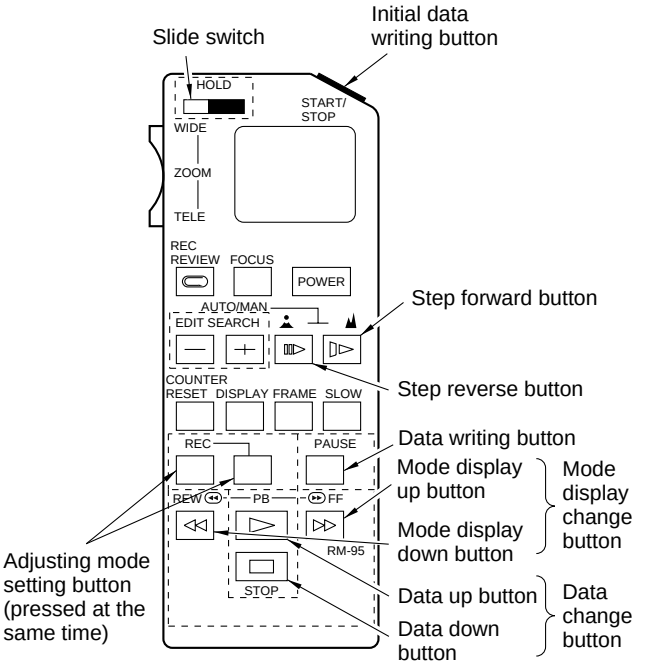
3-1-2. Connection Diagram



3-1-3. Camera Adjustment Commander



Adjusting remote controller RM-95 (J-6082-053-B)



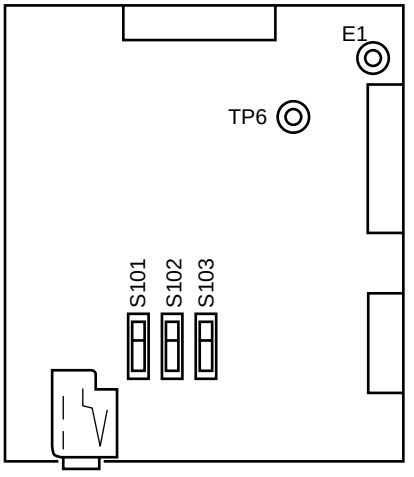
3-1-4. Adjustment Commander Relay Tool

Set the slide switch of the adjustment commander relay tool before making adjustment. (Refer to Section 3-2-1.)

S101: WRT/ADJ
S102: LOW/HI
S103: PAL/NTSC

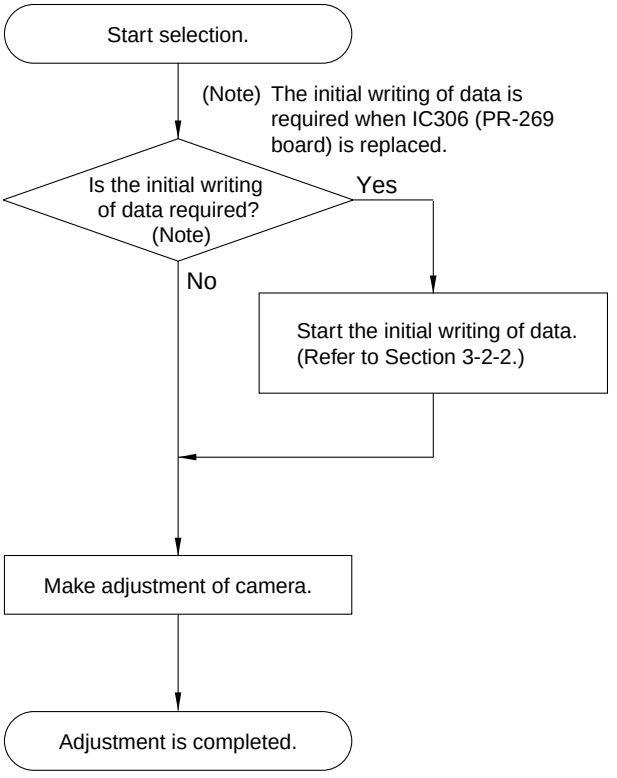
The signal required for adjustment can be obtained from the test pin of the adjustment commander relay tool.

TP6: VCO CONT
E1: GND



Adjusting commander relay tool

3-1-5. Selection Flowchart of Adjustment Required Items


Start selection.
(Note) The initial writing of data is required when IC306 (PR-269 board) is replaced.
Is the initial writing of data required? (Note)
Yes
No
Start the initial writing of data. (Refer to Section 3-2-2.)
Make adjustment of camera.
Adjustment is completed.

3-2. Adjustment Procedure

3-2-1. Preparation for Adjustment

1. Setting of switches
   - Set the DIP switch on the rear panel to LL.
   - Slide the slide switch (HOLD) on the upper part of the commander to the right side.
   - Set the slide switches of adjustment commander relay tool as follows
     NTSC (SSC-DC593): NTSC, LOW, ADJ
     PAL (SSC-DC593P/DC598P): PAL, LOW, ADJ
2. Connection of commander
   Connect the commander to the connector (CN202) on the PR-269 board using the adjustment commander relay tool (CN103). At that time, align pin 1 of the adjustment commander relay tool with pin 1 (on the rear panel side) of the connector.
3. Turn on the power of the unit.

3-2-2. Writing of Initial Data

Usually, the writing of initial data is automatically performed when it is required. It can also be performed by the following method.

1. Press the START/STOP button on top of the commander.
2. The number displayed on the LCD of the commander disappears for several seconds and is displayed again.

Note

In case that the number on the LCD is not displayed again, something is wrong with the circuit. After repairing the circuit, make adjustment.

Be sure to confirm the following after performing the initial data writing.

1. Change the mode display to “5F” by pressing the mode display button of the commander.
2. Change the data display to “01” by pressing the data change button.
3. Confirm the data according to the following table as steps 1 and 2.
   When the data is not correct, change the data.

Mode	Data
4C	90 (SSC-DC593) A0 (SSC-DC593P/DC598P)
4D	60 (SSC-DC593) A0 (SSC-DC593P/DC598P)

4. After completing all changes of the above data, write the data by pressing the data writing button of the commander.
   The LCD display of the commander disappears for several seconds and is displayed again.

3-3. Camera Adjustment

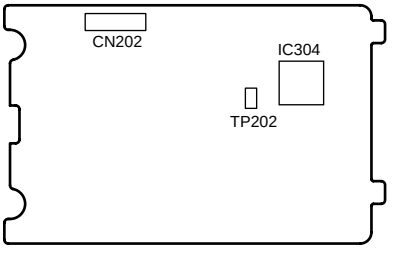
3-3-1. Adjusting Mode Setting

1. Press the Adjusting mode setting button of the commander.
2. The number displayed on the LCD of the commander disappears for several seconds and is displayed again.

Subject: Not required
Measuring point: None

3-3-2. fsc Adjustment

1. Press the step forward button of the commander one time. Then, “24” appears on the mode display.
2. Press the data change button so that the measuring frequency is within the specification.

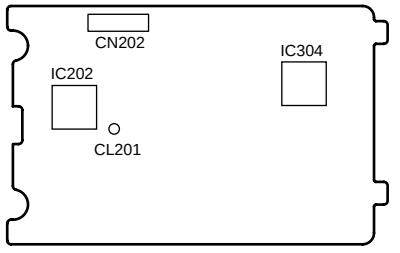


PR-269 board (Side A)

Subject: Not required
Measuring point: PR-269 board, TP202
Measuring equipment: Frequency counter
Mode display: 24
Specification: 14.318181 ±0.000080 MHz (SSC-DC593)
17.734472 ±0.000080 MHz (SSC-DC593P/DC598P)

3-3-3. 57 MHz Adjustment

1. Press the step forward button of the commander one time. Then, “22” appears on the mode display.
2. Press the data change button so that the measuring frequency is within the specification.



PR-269 board (Side A)

Subject:	Not required
Measuring point:	PR-269 board, CL201
Measuring equipment:	Frequency counter
Mode display:	22
Specification:	57.272720 ±0.000800 MHz (SSC-DC593)
	56.750000 ±0.0000800 MHz (SSC-DC593P/DC598P)

3-3-4. VCO Adjustment

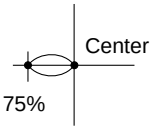
1. Press the step forward button of the commander one time. Then, “23” appears on the mode display.
2. Press the data change button so that the measuring voltage is within the specification.

Subject:	Not required
Measuring point:	Adjustment Commander relay tool board, TP6 (VCO CONT)
Measuring equipment:	Digital voltmeter
Mode display:	23
Specification:	1.9 ±0.10 V

3-3-5. Burst Level Adjustment

1. Press the step forward button of the commander one time. Then, “1D” appears on the mode display.
2. Press the data change button to meet the specification on the vector.

Subject:	Not required
Measuring point:	Vectorscope
Mode display:	1D
Specification:	Shall match with 75% mark.



3-3-6. SET UP Adjustment

1. Press the step forward button of the commander one time. Then, “14” appears on the mode display.
2. Press the data change button so that the measuring voltage is within the specification.

Subject:	Not required
Measuring point:	SET UP level of VIDEO OUT
Measuring equipment:	Waveform monitor
Mode display:	14
Specification:	5 ±3 IRE (SSC-DC593)
	20 ±15 mV (SSC-DC593P/DC598P)
Lens aperture:	Close

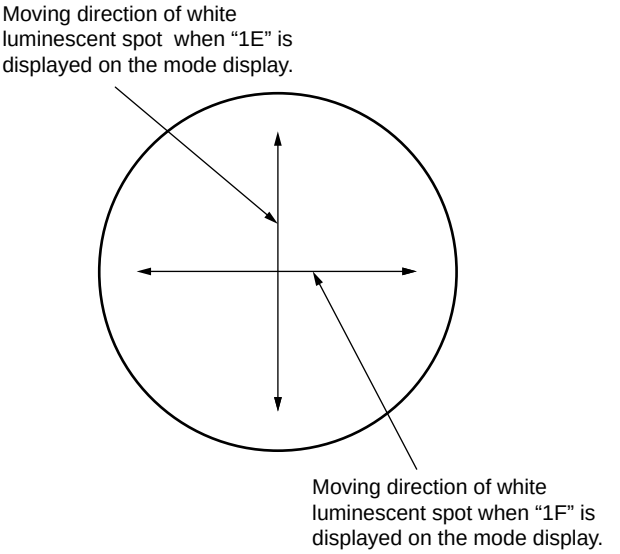
3-3-7. WB Adjustment (3200K Preset and WB Data Reading)

1. Press the step forward button of the commander one time. Then, “1E” appears on the mode display.
2. Set the lens aperture of the VIDEO OUT image level to the following specification.

Subject:	100% white pattern
Measuring point:	Image level of VIDEO OUT
Measuring equipment:	Waveform monitor
Mode display:	1E
Specification:	65 ±3 IRE (SSC-DC593) 455 ±20 mV (SSC-DC593P/DC598P)

3. While changing the mode display between “1E” and “1F” alternately using the mode display change button, adjust so that the white luminescent spot matches with the Vectorscope starting point using the data change button.

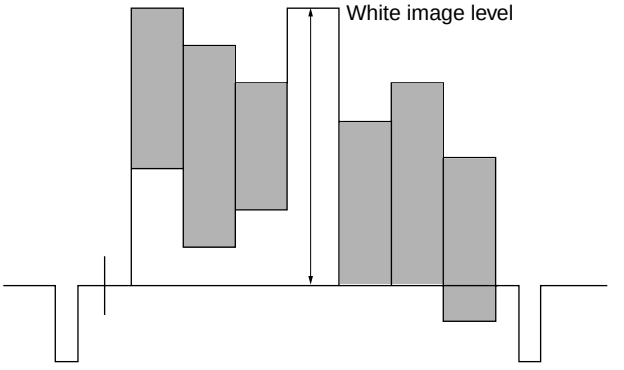
Subject:	100% white pattern
Measuring point:	White luminescent spot of VIDEO OUT
Measuring equipment:	Vectorscope
Mode display:	1E, 1F
Specification:	White luminescent spot matches with the Vectorscope starting point.


Moving direction of white luminescent spot when “1E” is displayed on the mode display.
Moving direction of white luminescent spot when “1F” is displayed on the mode display.

3-3-8. Color Reproduction Adjustment

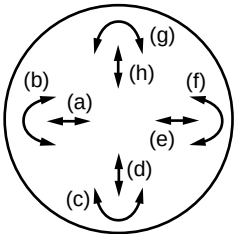
1. Press the step forward button of the commander one time. Then, “0C” appears on the mode display.
2. Shoot the image of color bar chart.
3. Set the lens aperture of the VIDEO OUT white level to the following specification.

Subject:	Color bar chart
Measuring point:	Image level of VIDEO OUT
Measuring equipment:	Waveform monitor
Mode display:	0C
Specification:	90 ±2.5 IRE (SSC-DC593) 630 ±15 mV (SSC-DC593P/598P)



4. While changing the mode display to “0C”, “0D”,”0E”, “0F”, “10”, “11”, “12” and “13” sequentially using the mode display change button, adjust so that the center of luminescent spot in all colors is within the range of color reproduction using the data change button.

Subject:	Color bar chart
Measuring point:	Luminescent spot of VIDEO OUT in each color
Measuring equipment:	Vectorscope
Mode display:	0C to 13
Specification:	Center of luminescent spot in all colors is within the range of color reproduction



(a) Moving direction of luminescent spot when “0C” is displayed on the mode display
(b) Moving direction of luminescent spot when “0D” is displayed on the mode display
(c) Moving direction of luminescent spot when “0E” is displayed on the mode display
(d) Moving direction of luminescent spot when “0F” is displayed on the mode display
(e) Moving direction of luminescent spot when “10” is displayed on the mode display
(f) Moving direction of luminescent spot when “11” is displayed on the mode display
(g) Moving direction of luminescent spot when “12” is displayed on the mode display
(h) Moving direction of luminescent spot when “13” is displayed on the mode display

3-3-9. WB Data Reading

1. Press the step forward button of the commander one time. Then, “15” appears on the mode display and “02” appears on the data display.
2. Shoot the image of 100% white pattern.
3. Set the lens aperture of the VIDEO OUT image level to the following specification.

Subject:	100% white pattern
Measuring point:	Image level of VIDEO OUT
Measuring equipment:	Waveform monitor
Mode display:	15
Specification:	65 ±3 IRE (SSC-DC593) 455 ±20 mV (SSC-DC593P/598P)

4. Press the data up button of the commander to display “03” on the data display.
5. Check that “FF” is automatically displayed on the data display of the commander.

Note

If “FF” is not displayed on the data display, something is wrong with the circuit. After repairing the circuit, make adjustment.

3-3-10. Data Writing

1. Press the step forward button of the commander one time.
2. Check that “00” is displayed on the mode display.

Notes

- If “00” is not displayed on the data display, something is wrong with the circuit. After repairing the circuit, make adjustment.
- Never press the data writing button (PAUSE button) of the commander at that time.

3-4. Confirmation after Adjustment

3-4-1. Preparation for Confirmation

Before performing the confirmation after adjustment, remove the commander and adjustment commander relay tool from the camera, and restart the unit.

3-4-2. Menu Operation

1. Set the MENU LOCK switch on the rear panel to OFF.
2. Press the MENU/ENTER button on the side panel and keep pressing until the menu is displayed.

```
[CAMERA MAIN MENU]                    [A]
> SYNC                                ▼
  EXPOSURE                            ▼
  DAY/NIGHT                           ▼
  WHITE BALANCE                       ▼
  ACTIVITY DETECTION                  ▼
  ZONE MASKING                        ▼
  OTHERS                              ▼
  CAMERA TITLE                        ▼
  USER PRESET

  EXIT
```

3. Move the cursor to the item you want to select using the up and down (↑, ↓) buttons on the side panel.
4. Press the MENU/ENTER button.
   The menu of the selected item is displayed.
   (The example below shows the screen when EXPOSURE is selected.)

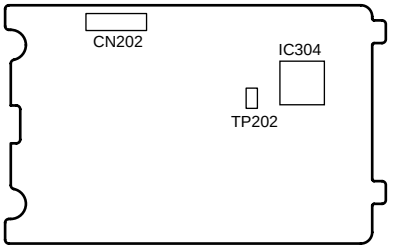
```
[EXPOSURE]                                [A]
> AGC                              OFF

  SHUTTER                          OFF

  BLC                              OFF
  VARIABLE GAMMA                   OFF
  VIDEO LEVEL                      L--*--H

  RET     EXIT
```

- To select the item, move the cursor (>) using the up and down (↑, ↓) buttons and to change the setting, move the cursor using the left and right (←, →) buttons.
- Move the cursor to RET and press the MENU/ENTER button to return to the previous screen, .
- To return to the normal screen, move the cursor to EXIT and press the MENU/ENTER button.

3-5. Confirmation

3-5-1. Confirmation of fsc Adjustment

1. Set the DIP switch on the rear panel to LL.
2. Input a sync signal to the VS IN connector.
3. Check that the measuring frequency is within specification.

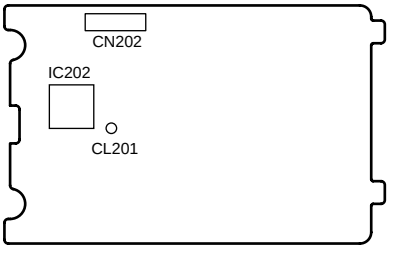


PR-269 board (Side A)

Subject:	Not required
Measuring point:	PR-269 board, TP202
Measuring equipment:	Frequency counter
Specification:	14.318181 ±0.000080 MHz (SSC-DC593)
	17.734472 ±0.000080 MHz (SSC-DC593P/598P)

3-5-2. Confirmation of 57 MHz Adjustment

1. Set the DIP switch on the rear panel to INT.
2. Check that the measuring frequency is within specification.

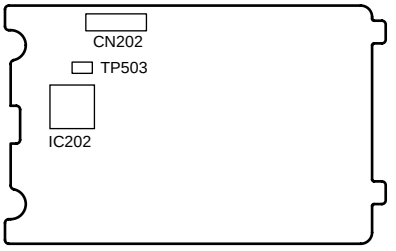


PR-269 board (Side A)

Subject:	Not required
Measuring point:	PR-269 board, CL201
Measuring equipment:	Frequency counter
Specification:	57.272720 ±0.000800 MHz (SSC-DC593)
	56.750000 ±0.000800 MHz (SSC-DC593P/598P)

3-5-3. Confirmation of VCO Adjustment

1. Set the DIP switch on the rear panel to LL.
2. Set the input power frequency as follows.
   - SSC-DC593: 60 Hz
   - SSC-DC593P/DC598P: 50 Hz
3. Check that the measuring voltage is within specification.



PR-269 board (Side A)

Subject:	Not required
Measuring point:	PR-269 board, TP503
Measuring equipment:	Digital voltmeter
Specification:	1.9 ±0.1 V

3-5-4. Confirmation of Burst Level Adjustment

Check that the measuring voltage is within specification.

Subject:	Not required
Measuring equipment:	Vectorscope
Specification:	Shall match with 75% mark.

3-5-5. Confirmation of SET UP Adjustment

1. Set AGC of the EXPOSURE menu to OFF. (Refer to Section 3-4-2.)
2. Check that the measuring voltage is within specification.

Subject:	Not required
Measuring point:	SET UP level of VIDEO OUT
Measuring equipment:	Waveform monitor
Specification:	7.5 ±2.0 IRE (SSC-DC593) 20 ±15 mV (SSC-DC593P/598P)
Lens aperture:	Close

3-5-6. Confirmation of WB Adjustment (3200K Preset and WB Data Reading)

1. Set AGC of the EXPOSURE menu to OFF. (Refer to Section 3-4-2.)
2. Set SHUTTER and BLC to OFF.
3. Set WHITE BALANCE of the WHITE BALANCE menu to ATW RRO.
4. Attach the C14 filter.
5. Shoot the image of 100% white pattern, then adjust the lens aperture so that the VIDEO OUT image level is within specification.

Subject:	100% white pattern
Measuring point:	Image level of VIDEO OUT
Measuring equipment:	Waveform monitor
Specification:	65 ±3 IRE (SSC-DC593) 455 ±35 mV (SSC-DC593P/598P)

3-6. Defect Correction Setting Procedure

When the defect is noticeable on the screen of CCD, it can be corrected by using this function.

Required tool
Tools for servicing (J-6432-830-A, J-6082-053-B)

When performing manual defect correction

1. Open the upper case of camera. (Refer to Section 1-2-1)
2. Connect the servicing tool to the camera and turn on the power.
3. Set AGC to TURBO and BLC to OFF in the EXPOSURE menu, then set the lens to close.
   At that time, be sure to take a note of the settings before correction.
4. Press the focus key to enter the defect correction setting mode.
5. When the marker is not appearing on the screen, set the coordinate of horizontal direction to 00 using the FF key or set the coordinate of vertical direction to 00 using the PLAY key. If the marker does not appear on the screen even after trying this, repeat steps 3 and 4.
6. Move the marker using the PLAY/STOP/REW/FF keys and align it on the defect you want to erase.
   At that time, the marker number, last two digits of horizontal coordinate and last two digits of vertical coordinate are displayed on the LCD from the left.
7. Press the FOCUS key to check if the defect is erased.
8. If the defect is not erased, repeat step 5 after pressing the FOCUS key.
   If there is more than one defect, press the REC REVIEW key after pressing the FOCUS key to switch the adjusting marker and repeat step 5 (a maximum of 8 defects can be corrected). The set marker blinks when the [DATA SCREEN] key is pressed for a long time, by which you can check the marker set at that time.
9. Remove the tool and turn the power on again. Check if the defect is erased. If not, start over from step 1.
10. Close the upper case of camera. Turn on the power of camera and return the settings to the original settings.
    Exit from the menu and wait for more than 2 seconds, then turn off the power.

When performing auto defect detection

1. Open the upper case of camera. (Refer to Section 1-2-1)
2. Connect the servicing tool to the camera and turn on the power.
   Set NIGHT to color and set lens to close. At that time, be sure to take a note of the settings before correction.
3. Set AGC to TURBO and BLC to OFF in the EXPOSURE menu.
4. Set DAY/NIGHT in the DAY/NIGHT menu to color and set the lens to close. At that time, be sure to take a note of the settings before correction.
5. Press the “REC REVIEW” key to enter the defect correction auto setting mode.
6. “DETECT?” appears on the screen, then press the “REC REVIEW” key again.
   If the lens is not set to close, “NOT CLOSE” is displayed. In this case, erase the display using the “REC REVIEW” key and start over from step 3.
7. After “DETECTING” disappears from the screen, turn on the power again and check that the defect is erased. If the defect is not erased, change the defective portion as an unnoticeable defect by the manual defect correction.
8. Return the settings to the original settings and close the upper case of camera.

Section 4
Spare Parts

4-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.
Parts list has the present standardized repair parts.

3. Stock of Parts

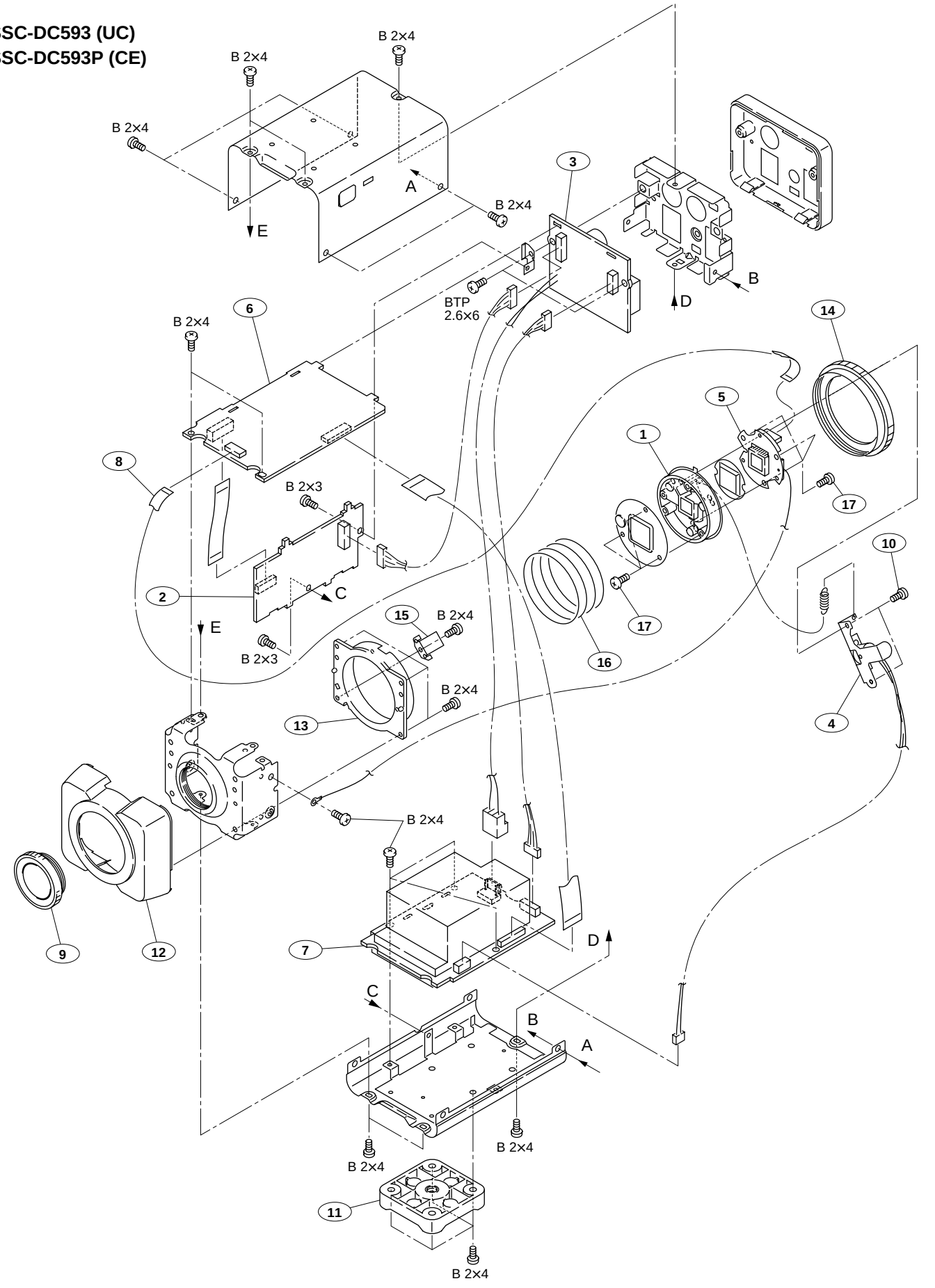
Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

4. Harness

Harnesses with no part number are not registered as spare parts.
In need of repair, get components shown in the list and repair using them.

4-2. Exploded Views

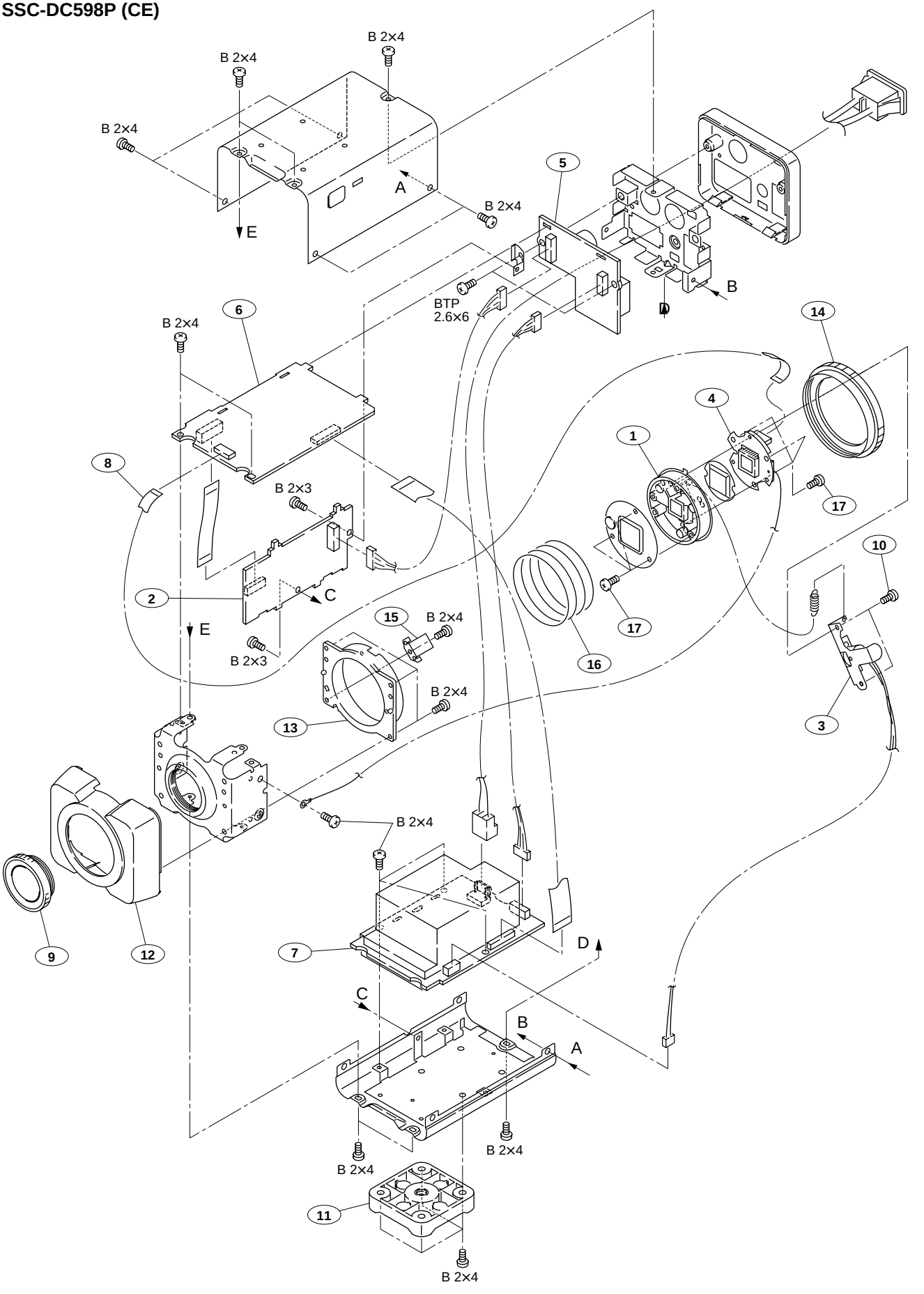
SSC-DC593 (UC)
SSC-DC593P (CE)



No.	Part No.	SP	Description
1	A-8279-768-A	s	BLOCK ASSY,SHUTTER
2	A-8345-845-A	s	MOUNTED CIRCUIT BOARD, FC-92
3	A-8345-846-A	s	MOUNTED CIRCUIT BOARD, CT-221A4
4	A-8345-853-A	s	MOTOR ASSY
5	A-8345-854-A	s	CCD (N) ASSY(WITH MOUNT) (for SSC-DC593(UC))
	A-8345-858-A	s	CCD (P) ASSY(WITH MOUNT) (for SSC-DC593P(CE))
6	A-8345-908-A	s	MOUNTED CIRCUIT BOARD, PR-269N (for SSC-DC593(UC))
	A-8345-909-A	s	MOUNTED CIRCUIT BOARD, PR-269P (for SSC-DC593P(CE))
7 ⚠	1-477-634-11	s	AC/DC power supply
8	1-777-087-11	o	CABLE, FLEXIBLE FLAT (13 CORE)
9	2-042-385-05	s	CAP, LENS MOUNT (FOR C MOUNT)
10	3-056-030-41	s	ACE (M1.7),0 PLATE 2 MAIN LOCK
11	3-183-833-11	s	ADAPTOR
12	3-633-424-01	o	CHASSIS, FRONT
13	3-633-426-01	o	BASE, RING
14	3-633-428-01	o	RING
15	3-633-429-01	o	PLATE,CLICK
16	3-633-434-01	o	SPRING,COMPRESSION
17	3-948-339-01	s	SCREW (BTP)(2X5),HEAD(TAP)(ST)
	7-621-772-00	s	SCREW +B2X3
	7-621-772-18	s	SCREW +B M2X4
	7-685-533-19	s	SCREW,+BTP2.6X6
	7-685-871-01	s	SCREW,+BVTT 3X6

Overall 2

SSC-DC598P (CE)



No.	Part No.	SP	Description
1	A-8279-768-A	s	BLOCK ASSY,SHUTTER
2	A-8345-845-A	s	MOUNTED CIRCUIT BOARD, FC-92
3	A-8345-853-A	s	MOTOR ASSY
4	A-8345-858-A	s	CCD (P) ASSY(WITH MOUNT)
5	A-8345-861-A	s	MOUNTED CIRCUIT BOARD, CT-221A8
6	A-8345-909-A	s	MOUNTED CIRCUIT BOARD, PR-269P
7	⚠ 1-468-722-11	s	REGULATOR, SWITCHING
8	1-777-087-11	o	CABLE, FLEXIBLE FLAT (13 CORE)
9	2-042-385-05	s	CAP, LENS MOUNT (FOR C MOUNT)
10	3-056-030-41	s	ACE (M1.7),0 PLATE 2 MAIN LOCK
11	3-183-833-11	s	ADAPTOR
12	3-633-424-01	o	CHASSIS, FRONT
13	3-633-426-01	o	BASE, RING
14	3-633-428-01	o	RING
15	3-633-429-01	o	PLATE,CLICK
16	3-633-434-01	o	SPRING,COMPRESSION
17	3-948-339-01	s	SCREW (BTP)(2X5),HEAD(TAP)(ST)
	7-621-772-00	s	SCREW +B2X3
	7-621-772-18	s	SCREW +B M2X4
	7-685-533-19	s	SCREW,+BTP2.6X6
	7-685-871-01	s	SCREW,+BVTT 3X6

4-3. Electrical Parts List

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BI-156 BOARD
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 Ref. No.
 or Q'ty  Part No.    SP Description

 C101     1-107-826-11 s CAPACITOR,CHIP CERAMIC 0.1MF
 C102     1-162-966-11 s CAPACITOR,CERAMIC 2200PF/50V B
 C103     1-162-970-11 s CAPACITOR CERAMIC 0.01MF/25V B
 C104     1-107-686-11 s CAPACITOR,TANTALUM 4.7MF/16V
 C105     1-104-478-11 s CAPACITOR TANTALUM 10MF/35V

 CN101    1-764-522-11 s CONNECTOR, FFC/FPC (ZIF) 13P

 L101     1-412-030-11 s INDUCTOR,CHIP 22UH (3225)

 Q101     8-729-102-08 s TRANSISTOR 2SC2223-F14
 Q102     8-729-232-86 s TRANSISTOR 2SK1875

 R101     1-216-857-11 s RESISTOR,CHIP 1M 1/10W(1608)
 R102     1-216-809-11 s RESISTOR,CHIP 100 1/10W 1608
 R104     1-218-849-11 s RESISTOR,CHIP 1.2K 1/10W(1608)
 R105     1-216-809-11 s RESISTOR,CHIP 100 1/10W 1608
 R106     1-218-873-11 s RESISTOR,CHIP 12K 1/10W (1608)
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CT-221 BOARD
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*1:SSC-DC593(UC)
*2:SSC-DC593P(CE)
*3:SSC-DC598P(CE)

 Ref. No.
 or Q'ty  Part No.    SP Description

 1pc   *1 A-8345-846-A s MOUNTED CIRCUIT BOARD, CT-221A4
 1pc   *2 A-8345-846-A s MOUNTED CIRCUIT BOARD, CT-221A4
 1pc   *3 A-8345-861-A s MOUNTED CIRCUIT BOARD, CT-221A8
 1pc      7-685-533-19 s SCREW,+BTP2.6X6

 CN601    1-573-806-21 s PIN,CONNECTOR (6P)(SMD)(1.5MM)
 CN602    1-691-591-11 o PIN,CONNECTOR (8P)(SMD)(1.5MM)
 CN603    1-694-958-11 s TERMINAL BOARD 7P
 CN604 *1 1-694-455-11 s TERMINAL BOARD, INPUT OUTPUT
       *2 1-694-455-11 s TERMINAL BOARD, INPUT OUTPUT
       *3 1-785-146-11 s CONNECTOR, COAXIAL (BNC TYPE)
 CN606 *1 1-961-135-11 o HARNESS, SUB (CT-AC)
       *2 1-961-135-11 o HARNESS, SUB (CT-AC)

 D601     8-719-036-94 s DIODE RD5.6SB-T1
 D602     8-719-036-94 s DIODE RD5.6SB-T1

 FB601    1-469-637-11 s FERRITE, EMI (SMD)
 FB602    1-469-637-11 s FERRITE, EMI (SMD)
 FB603    1-469-637-11 s FERRITE, EMI (SMD)
 FB604    1-469-637-11 s FERRITE, EMI (SMD)
 FB605    1-469-637-11 s FERRITE, EMI (SMD)

 FB606    1-469-637-11 s FERRITE, EMI (SMD)
 FB607    1-469-637-11 s FERRITE, EMI (SMD)
 FB608    1-469-637-11 s FERRITE, EMI (SMD)
 FB609    1-469-637-11 s FERRITE, EMI (SMD)
 FB610    1-469-637-11 s FERRITE, EMI (SMD)

 FB611    1-469-637-11 s FERRITE, EMI (SMD)
 FB612    1-469-637-11 s FERRITE, EMI (SMD)
 FB613    1-469-637-11 s FERRITE, EMI (SMD)
 FB614    1-469-637-11 s FERRITE, EMI (SMD)
 FB615    1-469-637-11 s FERRITE, EMI (SMD)

 FB616    1-469-637-11 s FERRITE, EMI (SMD)

 JC602    1-216-295-91 s CONDUCTOR, CHIP (2012)
 JC603    1-216-295-91 s CONDUCTOR, CHIP (2012)

 S601     1-572-528-11 s SWITCH, SLIDE (2-2-2)
 S602     1-572-529-11 s SWITCH, SLIDE (1-1-2)
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FC-92 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8345-845-A	s	MOUNTED CIRCUIT BOARD, FC-92
C701	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C702	1-165-379-11	s	CAPACITOR CERAMIC 2200PF/500V
C703	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C704	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C705	1-165-379-11	s	CAPACITOR CERAMIC 2200PF/500V
C706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C707	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C708	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C709	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C710	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C711	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C712	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C713	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C714	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C715	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C716	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C717	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C718	1-137-689-91	s	CAPACITOR TANTALUM ELECT 47MF
CN701	1-691-591-11	o	PIN,CONNECTOR (8P)(SMD)(1.5MM)
CN702	1-784-640-21	o	CONNECTOR, FFC (ZIF) 22P
D701	8-719-159-10	s	DIODE RD5.1SB-T2
D702	8-719-159-10	s	DIODE RD5.1SB-T2
D705	8-719-075-15	s	DIODE MAZT082H08S0
D706	8-719-075-15	s	DIODE MAZT082H08S0
D707	8-719-037-37	s	DIODE RD18SB-T1
D708	8-719-037-37	s	DIODE RD18SB-T1
D710	8-719-075-15	s	DIODE MAZT082H08S0
D711	8-719-075-15	s	DIODE MAZT082H08S0
FB701	1-414-656-11	s	FERRITE, EMI (SMD)
FB702	1-414-656-11	s	FERRITE, EMI (SMD)
FB703	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB704	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB705	1-414-656-11	s	FERRITE, EMI (SMD)
FB706	1-414-656-11	s	FERRITE, EMI (SMD)
FB707	1-414-656-11	s	FERRITE, EMI (SMD)
FB708	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB709	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB710	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
IC701	6-703-102-01	s	IC MAX3085ESA-TG068
IC702	8-759-523-87	s	IC TC4049BF
L701	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L702	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
PH701	8-719-820-86	s	PHOTO INTERRUPTER TLP112
PH702	8-719-820-86	s	PHOTO INTERRUPTER TLP112
PH703	6-600-150-01	s	PHOTO COUPLAR TLP281-4(TP)
R702	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/10W(1608)
R703	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/10W
R704	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/10W 1608
R705	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R706	1-216-839-11	s	RESISTOR,CHIP 33K 1/10W 1608
R711	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R712	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R714	1-218-325-11	s	RESISTOR,CHIP 120 1/4W (3225)
R715	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R716	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608

(FC-92 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R717	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R718	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R719	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R720	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R721	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R722	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R723	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R724	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R725	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R726	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R727	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/10W 1608
R728	1-216-839-11	s	RESISTOR,CHIP 33K 1/10W 1608
R729	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/10W 1608
R730	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/10W 1608
R731	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R732	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R733	1-216-823-11	s	RESISTOR, CHIP 1.5K 1/10W
R734	1-216-817-11	s	RESISTOR,CHIP 470 1/10W 1608
R735	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/10W 1608
R736	1-218-867-11	s	RESISTOR,CHIP 6.8K 1/10W(1608)
R737	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
S701	1-572-921-11	s	SWITCH,KEY BOARD
S702	1-572-921-11	s	SWITCH,KEY BOARD
S703	1-572-921-11	s	SWITCH,KEY BOARD
S704	1-572-921-11	s	SWITCH,KEY BOARD
S705	1-572-921-11	s	SWITCH,KEY BOARD
S706	1-572-879-11	s	SWITCH DIP (8P)

PR-269 BOARD
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*1:SSC-DC593(UC)
*2:SSC-DC593P(CE)
*3:SSC-DC598P(CE)

Ref. No. or Q'ty	Part No.	SP	Description
1pc	*1 A-8345-908-A	s	MOUNTED CIRCUIT BOARD, PR-269N
1pc	*2 A-8345-909-A	s	MOUNTED CIRCUIT BOARD, PR-269P
1pc	*3 A-8345-909-A	s	MOUNTED CIRCUIT BOARD, PR-269P
2pcs	7-621-772-18	s	SCREW +B M2X4
C202	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C204	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C205	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C206	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C207	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C208	1-164-392-11	s	CAPACITOR CERAMIC 390PF/50V CH
C209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C210	1-164-392-11	s	CAPACITOR CERAMIC 390PF/50V CH
C211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C214	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C215	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C216	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C217	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C218	1-165-629-11	s	CAPACITOR,CERAMIC1000000PF B
C219	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C220	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C221	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C222	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C223	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C224	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C225	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C226	1-119-751-11	s	CAPACITOR,TANTALUM 22MF/16V
C227	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C228	1-128-694-11	s	CAP, CHIP TANTALUM ELECT 22MF
C229	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C230	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C231	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C232	1-104-920-11	s	CAPACITOR TANTALUM 4.7MF/35V
C233	1-125-839-11	s	CAPACITOR,TANTALUM 47MF/6.3V
C234	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C235	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C236	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C237	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C238	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C239	1-125-839-11	s	CAPACITOR,TANTALUM 47MF/6.3V
C240	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C241	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C242	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C243	1-119-750-11	s	CAPACITOR,TANTALUM 22MF/6.3V
C244	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C245	1-137-689-91	s	CAPACITOR TANTALUM ELECT 47MF
C246	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C247	1-125-839-11	s	CAPACITOR,TANTALUM 47MF/6.3V
C248	1-128-964-11	s	CAPACITOR,TANTALUM 100MF/6.3V
C249	1-128-964-11	s	CAPACITOR,TANTALUM 100MF/6.3V
C250	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C251	1-135-856-11	s	CAPACITOR,TANTALUM 100MF/10V
C252	1-165-585-21	s	CAPACITOR, CHIP ELECT 47MF
C253	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C257	1-137-689-91	s	CAPACITOR TANTALUM ELECT 47MF

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Ref. No. or Q'ty	Part No.	SP	Description
C258	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C259	1-104-919-11	s	CAPACITOR,TANTALUM 10MF/25V
C261	1-104-919-11	s	CAPACITOR,TANTALUM 10MF/25V
C262	1-137-710-91	s	CAPACITOR,CERAMIC 10MF B(2012)
C264	1-128-694-11	s	CAP, CHIP TANTALUM ELECT 22MF
C265	1-135-856-11	s	CAPACITOR,TANTALUM 100MF/10V
C266	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C269	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C271	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C272	1-119-751-11	s	CAPACITOR,TANTALUM 22MF/16V
C273	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C275	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C302	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C305	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C306	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C307	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C308	1-137-934-11	s	CAPACITOR, CHIP TANTALUM 47MF
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C312	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C313	1-125-839-11	s	CAPACITOR,TANTALUM 47MF/6.3V
C314	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C316	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C317	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C318	1-135-957-11	s	CAP, CHIP TANTALUM ELECT 10MF
C319	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C320	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C403	1-165-176-11	s	CAPACITOR,CERAMIC 47000PF/16V
C404	1-162-966-11	s	CAPACITOR,CERAMIC 2200PF/50V B
C405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C410	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C413	1-137-934-11	s	CAPACITOR, CHIP TANTALUM 47MF
C501	1-162-964-11	s	CAPACITOR,CERAMIC 1000PF/50V B
C502	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C503	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C504	1-119-750-11	s	CAPACITOR,TANTALUM 22MF/6.3V
C505	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C506	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C508	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
C509 *1	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C513	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C514	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C518	1-119-750-11	s	CAPACITOR,TANTALUM 22MF/6.3V
C519	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C520 *1	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
*2	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
*3	1-162-927-11	s	CAPACITOR,CERAMIC 100PF/50V CH
C524	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C527	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C528	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C531	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C533	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C534	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C535	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C536 *1	1-162-921-11	s	CAPACITOR,CERAMIC 33PF/50V CH
*2	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH
*3	1-162-919-11	s	CAPACITOR,CERAMIC 22PF/50V CH

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Ref. No. or Q'ty	Part No.	SP	Description
C537	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C538 *1	1-162-916-11	s	CAPACITOR,CERAMIC 12PF/50V CH
*2	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
*3	1-162-912-11	s	CAPACITOR,CERAMIC 7PF/50V 1608
C539	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C540	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C541	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C542	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C543	1-137-704-91	s	CAPACITOR, TANTALUM 10MF(3216)
C546	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C547	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C550	1-125-889-11	s	CAPACITOR, C.CERAMIC 2.2MF
C551	1-119-750-11	s	CAPACITOR,TANTALUM 22MF/6.3V
C552	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
CN201	1-573-922-11	s	CONNECTOR,FFC/FPC 13P
CN202	1-778-336-21	s	PIN, CONNECTOR (PC BOARD) 14P
CN203	1-573-368-11	s	CONNECTOR,FFC/FPC 28P
CN301	1-764-529-11	s	CONNECTOR, FFC/FPC (ZIF) 22P
CN401	1-815-567-11	o	CONNECTOR, SQUARE TYPE 4P
D201	8-719-073-01	s	DIODE MA111-(K8).S0
D301	8-719-073-01	s	DIODE MA111-(K8).S0
D501	6-500-454-01	s	DIODE KV1812K
D502	8-719-073-01	s	DIODE MA111-(K8).S0
D504	8-719-031-68	s	DIODE HVU359-TRF
D505	8-719-073-01	s	DIODE MA111-(K8).S0
D506	8-719-031-68	s	DIODE HVU359-TRF
D507 *1	8-719-073-01	s	DIODE MA111-(K8).S0
D508	8-719-031-68	s	DIODE HVU359-TRF
FB401	1-469-667-21	s	FERRITE, EMI (SMD)
FB402	1-469-667-21	s	FERRITE, EMI (SMD)
FB403	1-469-667-21	s	FERRITE, EMI (SMD)
FB404	1-469-667-21	s	FERRITE, EMI (SMD)
FB405	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB406	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB407	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB408	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB409	1-414-656-11	s	FERRITE, EMI (SMD)
FB410	1-414-656-11	s	FERRITE, EMI (SMD)
FB411	1-414-656-11	s	FERRITE, EMI (SMD)
FB412	1-414-656-11	s	FERRITE, EMI (SMD)
FB413	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB414	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB415	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FB416	1-414-760-21	s	INDUCTOR, MICRO (CHIP TYPE)
FL201 *1	1-233-668-21	s	FILTER, BAND PASS
*2	1-233-669-21	s	FILTER, BAND PASS
*3	1-233-669-21	s	FILTER, BAND PASS
FL202	1-239-352-11	s	FILTER, LOW PASS
IC201	8-752-417-61	s	IC CXD3301R
IC202	8-752-409-09	s	IC CXD2493R
IC203	8-752-411-28	s	IC CXD3151R
IC204	6-802-232-01	s	IC CXD9160TQ
IC207	8-759-429-17	s	IC NJM2268V
IC208	8-759-277-63	s	IC TC7W14FU (TE12R)
IC301	8-759-526-89	s	IC MB88347LPFV-ER
IC302	8-759-564-49	s	IC TC7W53FU-TE12R
IC304	6-802-772-01	s	IC TMP91CW12AF-4K17

(PR-269 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC305	6-703-188-01	s	IC S-80827CNNB-B8M-T2
IC306	8-759-445-94	l	IC AK6480AM-E2
IC307	6-800-965-01	s	IC BU3095-03FV-E2
IC308	8-759-523-87	s	IC TC4049BF
IC309	6-700-193-01	s	IC LB1940U-TLM-E
IC402	8-759-359-49	s	IC NJM3414AV (TE2)
IC501	8-759-592-42	s	IC TC7SZ00FU(TE85R)
IC502	8-759-592-42	s	IC TC7SZ00FU(TE85R)
IC504	8-759-592-45	s	IC TC7SZU04FU(TE85R)
IC505 *1	8-759-196-93	s	IC TC7SH00FU-TE85R
IC506	8-759-592-42	s	IC TC7SZ00FU(TE85R)
IC508	8-759-592-45	s	IC TC7SZU04FU(TE85R)
IC509	8-759-082-60	s	IC TC7S66FU
IC511	8-759-196-93	s	IC TC7SH00FU-TE85R
IC512	8-759-082-60	s	IC TC7S66FU
IC513	8-759-271-88	s	IC TC7SHU04FU
IC514	8-759-592-42	s	IC TC7SZ00FU(TE85R)
L201	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L202	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L203	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L204	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L205	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L206	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L207	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L208	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L209	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L210	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L211	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L212	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L213	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L214	1-412-027-11	s	INDUCTOR,CHIP 2.2UH (3225)
L215	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L216	1-412-027-11	s	INDUCTOR,CHIP 2.2UH (3225)
L217	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L218	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L219	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L221	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L222	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L302	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L303	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L304	1-412-027-11	s	INDUCTOR,CHIP 2.2UH (3225)
L305	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L306	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L402	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L501	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L504	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L505	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L506	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L507	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
LV501	1-456-175-21	s	COIL, VARIABLE
Q202	8-729-230-60	s	TRANSISTOR 2SA1586-YG
Q203	8-729-230-60	s	TRANSISTOR 2SA1586-YG
Q204	8-729-230-60	s	TRANSISTOR 2SA1586-YG
Q205	8-729-230-60	s	TRANSISTOR 2SA1586-YG
Q207	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q208	8-729-230-63	s	TRANSISTOR 2SC4116-YG
Q402	8-729-427-74	s	TRANSISTOR XP4601-TXE

(PR-269 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R204	1-216-845-11	s	RESISTOR,CHIP 100K 1/10W(1608)
R205	1-216-797-11	s	RESISTOR,CHIP 10 1/10W 1608
R206	1-216-797-11	s	RESISTOR,CHIP 10 1/10W 1608
R207	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R208	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R209	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R210	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R211	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R212	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R213	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R214	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R215	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R216	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R217	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R218	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R221	1-218-847-11	s	RESISTOR, CHIP 1K 1/10W (1608)
R222	1-218-847-11	s	RESISTOR, CHIP 1K 1/10W (1608)
R223	1-218-847-11	s	RESISTOR, CHIP 1K 1/10W (1608)
R224	1-218-855-11	s	RESISTOR,CHIP 2.2K 1/10W(1608)
R225	1-218-847-11	s	RESISTOR, CHIP 1K 1/10W (1608)
R226	1-218-847-11	s	RESISTOR, CHIP 1K 1/10W (1608)
R227	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R228	1-218-855-11	s	RESISTOR,CHIP 2.2K 1/10W(1608)
R229	1-218-849-11	s	RESISTOR,CHIP 1.2K 1/10W(1608)
R232	1-218-855-11	s	RESISTOR,CHIP 2.2K 1/10W(1608)
R233	1-218-841-11	s	RESISTOR,CHIP 560 1/10W (1608)
R234	1-218-841-11	s	RESISTOR,CHIP 560 1/10W (1608)
R236	1-218-872-11	s	RESISTOR,CHIP 11K 1/10W (1608)
R237 *1	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R238	1-218-840-11	s	RESISTOR,CHIP 510 1/10W (1608)
R239	1-218-839-11	s	RESISTOR,CHIP 470 1/10W (1608)
R240	1-218-863-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R241	1-218-863-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R244	1-218-855-11	s	RESISTOR,CHIP 2.2K 1/10W(1608)
R248	1-211-990-11	s	RESISTOR,CHIP 75 1/10W (1608)
R255	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R269	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R270 *1	1-216-864-11	s	CONDUCTOR, CHIP (1608)
*2	1-500-283-11	s	INDUCTOR, FERRITE BEAD
*3	1-500-283-11	s	INDUCTOR, FERRITE BEAD
R304	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R305	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R307	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R309	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R310	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R311	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R312	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R313	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R314	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R315	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R316	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R319	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R324	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R325	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R326	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R327	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/10W(1608)
R328 *1	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R329 *2	1-216-864-11	s	CONDUCTOR, CHIP (1608)
*3	1-216-864-11	s	CONDUCTOR, CHIP (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R331	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R332	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R333	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R335	1-216-841-11	s	RESISTOR, CHIP 47K 1/10W 1608
R336	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R337	1-218-853-11	s	RESISTOR,CHIP 1.8K 1/10W(1608)
R338	1-218-863-11	s	RESISTOR,CHIP 4.7K 1/10W(1608)
R339	1-220-230-11	s	RESISTOR CHIP 2.2 1/4W (3225)
R340	1-220-230-11	s	RESISTOR CHIP 2.2 1/4W (3225)
R341	1-218-869-11	s	RESISTOR,CHIP 8.2K 1/10W(1608)
R406	1-216-847-11	s	RESISTOR, CHIP 150K 1/10W 1608
R407	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R408	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/10W(1608)
R411	1-216-835-11	s	RESISTOR,CHIP 15K 1/10W
R412	1-216-847-11	s	RESISTOR, CHIP 150K 1/10W 1608
R413	1-216-839-11	s	RESISTOR,CHIP 33K 1/10W 1608
R414	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/10W 1608
R416	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/10W(1608)
R417	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R418	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R419	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R501	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R502	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R503	1-218-829-11	s	RESISTOR,CHIP 180 1/10W (1608)
R504	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R505	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R506	1-216-845-11	s	RESISTOR,CHIP 100K 1/10W(1608)
R510	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R511	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R512	1-216-809-11	s	RESISTOR,CHIP 100 1/10W 1608
R513	1-216-845-11	s	RESISTOR,CHIP 100K 1/10W(1608)
R514	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R518	1-216-833-11	s	RESISTOR,CHIP 10K 1/10W (1608)
R519	1-216-845-11	s	RESISTOR,CHIP 100K 1/10W(1608)
R520 *2	1-216-864-11	s	CONDUCTOR, CHIP (1608)
*3	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R522	1-216-857-11	s	RESISTOR,CHIP 1M 1/10W(1608)
R523	1-216-817-11	s	RESISTOR,CHIP 470 1/10W 1608
R524	1-216-845-11	s	RESISTOR,CHIP 100K 1/10W(1608)
R527	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R528	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R529	1-218-823-11	s	RESISTOR,CHIP 100 1/10W (1608)
S401	1-570-114-11	s	SWITCH,SLIDE (2-2-2)
TP202	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP302	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP502	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
TP503	1-535-757-11	s	CHIP, CHECKER (CONNECTOR)
X303	1-781-408-11	s	VIBRATOR, CERAMIC 27MHZ
X501 *1	1-795-746-21	s	VIBRATOR, CRYSTAL
*2	1-795-745-21	s	VIBRATOR, CRYSTAL
*3	1-795-745-21	s	VIBRATOR, CRYSTAL
X502 *1	1-579-994-12	s	VIBRATOR, CERAMIC
*2	1-579-995-12	s	VIBRATOR, CERAMIC
*3	1-579-995-12	s	VIBRATOR, CERAMIC

4-4. Parts List for Frame

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FRAME
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*1:SSC-DC593(UC)
*2:SSC-DC593P(CE)
*3:SSC-DC598P(CE)

 Ref. No.
 or Q'ty  Part No.    SP Description

 1pc *1 ⚠ 1-477-634-11 s POWER, DC
 1pc *2 ⚠ 1-477-634-11 s POWER, DC
 1pc *3 ⚠ 1-468-722-11 s REGULATOR, SWITCHING
 1pc      1-777-087-11 o CABLE, FLEXIBLE FLAT (13 CORE)
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4-5. Packing Materials & Supplied Accessories

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PACKING MATERIALS & SUPPLIED ACCESSORIES
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*1:SSC-DC593(UC)
*2:SSC-DC593P(CE)
*3:SSC-DC598P(CE)

 Ref. No.
 or Q'ty  Part No.    SP Description

 1pc *3 ⚠ 1-575-131-11 s CORD,POWER (IEC)
 1pc   *1 3-704-749-11 s OPERATING INSTRUCTIONS

 1pc   *2 3-704-749-11 s OPERATING INSTRUCTIONS
 1pc   *2 3-704-749-21 s OPERATING INSTRUCTIONS
 1pc   *3 3-704-749-21 s OPERATING INSTRUCTIONS
 1pc   *1 3-704-750-11 s MENU OPERATIONS
 1pc   *2 3-704-750-11 s MENU OPERATIONS

 1pc   *2 3-704-750-21 s MENU OPERATIONS
 1pc   *3 3-704-750-21 s MENU OPERATIONS
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Section 5
Semiconductor Pin Assignments

The following describes the semiconductor types used in this unit.
For semiconductors marked with page numbers in the index, refer to the corresponding pages in this section. However, in some cases incompatible types are also listed, therefore, when a part is to be replaced, also refer to the Spare Parts section.
In addition, for semiconductors with ID Nos., refer to the separate CD-ROM titled “Semiconductor Pin Assignments” (Sony Part No. 9-968-546-xx) that allows searching for parts by semiconductor type or ID No.
The semiconductors in the manual or on the CD-ROM are listed by equivalent types. Thus the external view or the index mark indication may differ from the actual type.
Pin assignments and block diagrams are based on the IC manufacturer’s data book.

本機に使用されている半導体型名の一覧を下記に示します。
索引中，ページが記載されている半導体は，本章の該当ページを参照してください。ただし，互換性のない型名を併記している場合がありますので，部品を交換するときは，Spare Partsの章を参照してください。
また，ID番号が記載されている半導体は，別途発行の “Semiconductor Pin Assignments” CD−ROM版 (ソニー部品番号：9−968−546−xx)を参照してください。
半導体型名またはID番号から検索ができます。
マニュアルまたはCD−ROMに掲載されている半導体は，それぞれの機能を等価的に表わしたものです。
外観やインデックスマークの表示方法が実物と異なる場合があります。
ピン配置およびブロック図はICメーカーのデータブックに従いました。

DIODE — **Page or ID No.**

HVU359TRF DC008-02

KV1812K DC008-05

MA111-(K8).S0 ..... DC008-01
MA111-TX DC008-01
MAZT082H08S0 5-2

RD18SB-T1 ..... DC008-04
RD5.1SB-T1 ..... DC008-04
RD5.1SB-T2 ..... DC008-04
RD5.6SB-T1 ..... DC008-04

TRANSISTOR — **Page or ID No.**

2SA1586-YG TC001-01
2SA1586YG-TE85L TC001-01
2SC2223-F14 ..... TC001-02
2SC2223-T1F14 ..... TC001-02
2SC4116-YG TC001-02
2SC4116YG-TE85L TC001-02
2SC4178-F14 ..... TC001-02
2SC4178-T1F14 ..... TC001-02
2SK1875 ..... TC001-05
2SK1875-(TE85L) TC001-05

XP4601-TXE TC006-08

IC — **Page or ID No.**

AK6480AM-E2 ..... AK6480AM-E2

BU3095-03FV-E2 5-3

CXD2493R 5-4
CXD3151R 5-5
CXD3301R 5-8
CXD9160TQ 5-6

LB1940U-TLM-E 5-7

MAX3085ESA-TG068 5-3
MB88347LPFV-ER MB88347PFV-G-BND

NJM2268V NJM2268V
NJM2268V(TE2) NJM2268V
NJM3414AV(TE2) RC4558

S-80827CNNB-B8M-T2 5-3

TC4049BF CD4049AE
TC4049BF(EL,N) CD4049AE
TC7S66FU SC14S66F
TC7S66FU(TE85R) SC14S66F
TC7SH00FU-TE85R TC7S00F
TC7SHU04FU-TE85R TC7S04F
TC7SZ00FU(TE85R) TC7S00F
TC7SZU04FU(TE85R) TC7S04F
TC7W14FU(TE12R) TC7W14FU
TC7W53FU(TE12R) TC4W53FU
TMP91CW12AF-4G61 5-9
TMP91CW12AF-4GU3 5-9

Index, DIODE

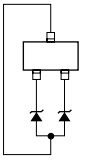
OTHERS **Page or ID No.**

TLP112 5-10
TLP281-4(TP) MA008-01

DIODE

MAZT082H08S0

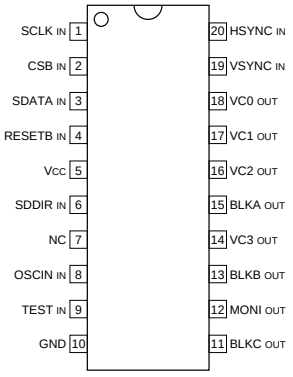
—TOP VIEW—



IC

BU3095-03FV-E2 (ROHM)

CHARACTER GENERATOR
—TOP VIEW—



INPUTS

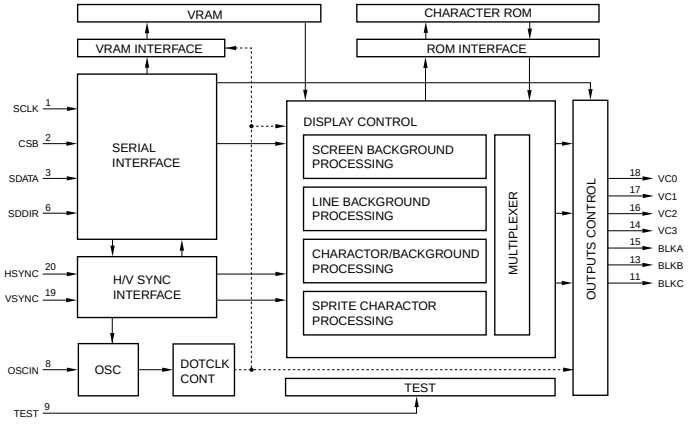
CSB	:	SERIAL DATA TRANSFER PERMISSION
HSYNC	:	HORIZONTAL SYNC SIGNAL
OSCIN	:	DOT CLOCK
RESETB	:	RESET
SCLK	:	SERIAL DATA CLOCK
SDATA	:	SERIAL DATA
SDDIR	:	SERIAL DATA INPUT DIRECTION SELECT
TEST	:	TEST
VSYNC	:	VERTICAL SYNC SIGNAL

OUTPUTS

BLKA, BLKB, BLKC	:	BLANKING SIGNAL
MONI	:	TEST MONITOR
VC0 - VC3	:	CHARACTER SIGNAL

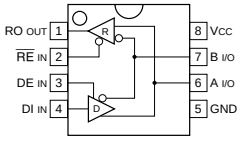
OTHER

NC	:	NO CONNECTION



MAX3085ESA-TG068 (MAXIM)

RS485/422 TRANSCEIVER
—TOP VIEW—



INPUTS

DE	:	DRIVER ENABLE
DI	:	DRIVER
$\overline{RE}$	:	RECEIVER ENABLE

OUTPUT

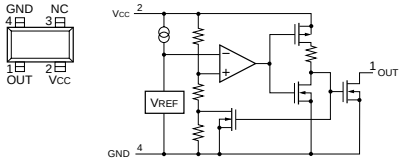
RO	:	RECEIVER

INPUTS/OUTPUTS

A	:	NON-INV DRIVER OUTPUT/RECEIVER INPUT
B	:	INV DRIVER OUTPUT/RECEIVER INPUT

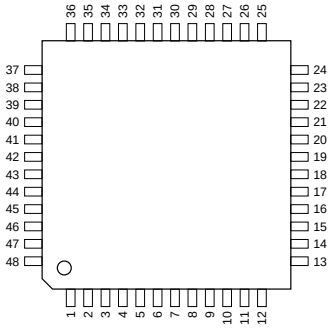
S-80827CNNB-B8M-T2 (SEIKO INSTR)

VOLTAGE DETECTOR
—TOP VIEW—

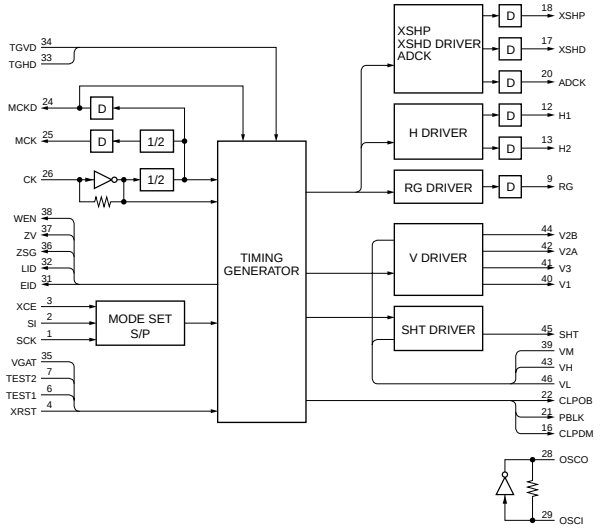


CXD2493R (SONY)

TIMING CONTROLLER FOR CCD CAMERA
—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	SCK	13	O	H2	25	O	MCK	37	O	ZV
2	I	SI	14	—	A.Vcc	26	I	CK	38	O	WEN
3	I	XCE	15	—	A.Vcc	27	—	GND	39	—	VM
4	I	XRST	16	O	CLPDM	28	O	OSCO	40	O	V1
5	—	Vcc	17	O	XSHD	29	I	OSCI	41	O	V3
6	I	TEST1	18	O	XSHP	30	—	Vcc	42	O	V2A
7	I	TEST2	19	—	GND	31	O	EID	43	—	VH
8	—	A.Vcc	20	O	ADCK	32	O	LID	44	O	V2B
9	O	RG	21	O	PBLK	33	I	TGHD	45	O	SHT
10	—	GND	22	O	CLPOB	34	I	TGVD	46	—	VL
11	—	GND	23	—	Vcc	35	I	VGAT	47	—	NC
12	O	H1	24	O	MCKD	36	O	ZSG	48	—	GND



INPUTS

CK	:	MAIN CLOCK
OSCI	:	INVERTER INPUT FOR OSCILLATION
SCK	:	SERIAL CLOCK
SI	:	SERIAL DATA
TEST1, TEST2	:	TEST
TGHD	:	HORIZONTAL SYNC
TGVD	:	VERTICAL SYNC
VGAT	:	VERTICAL CLOCK CONTROL SIGNAL INPUT FOR ELECTRONIC ZOOM
XCE	:	SERIAL STROBE
XRST	:	RESET (L: RESET)

OUTPUTS

ADCK	:	CLOCK FOR FRONT SIGNAL PROCESSING
CLPDM	:	CLAMP PULSE FOR CCD DUMMY BIT SIGNAL
CLPOB	:	CLAMP PULSE FOR CCD OPTICAL BLACK SIGNAL
EID	:	EXPOSURE TIME IDENTIFICATION
H1, H2	:	CCD HORIZONTAL REGISTER CLOCK
LID	:	LINE IDENTIFICATION
MCK	:	MASTER CLOCK
MCKD	:	DOUBLE SPEED MASTER CLOCK
OSCO	:	INVERTER OUTPUT FOR OSCILLATION
PBLK	:	SIGNAL CLEARING PULSE FOR H/V BLANKING
RG	:	GATE PULSE FOR CCD RESET
SHT	:	PULSE OUTPUT FOR ELECTRONIC SHUTTER
V1, V2A V2B, V3	:	CLOCK OUTPUT FOR CCD VERTICAL REGISTER
WEN	:	WRITE ENABLE OUTPUT FOR MEMORY IC
XSHD	:	S/H PULSE FOR CCD OUTPUT DATA LEVEL
XSHP	:	S/H PULSE FOR CCD OUTPUT PRECHARGE LEVEL
ZSG	:	FIELD REFERENCE SIGNAL OUTPUT FOR DEFECT COMPENSATION
ZV	:	LINE REFERENCE SIGNAL OUTPUT FOR DEFECT COMPENSATION

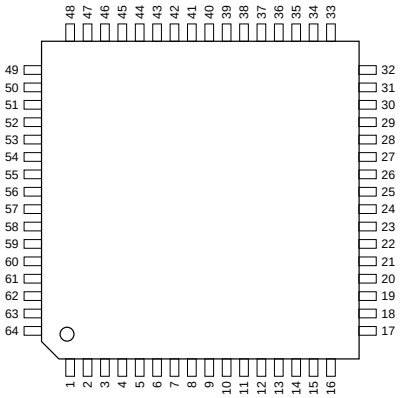
OTHERS

NC	:	NO CONNECTION
VH	:	POSITIVE POWER SUPPLY (FOR V DRIVER)
VL	:	NEGATIVE POWER SUPPLY (FOR V DRIVER)
VM	:	GND (FOR V DRIVER)

CXD3151R (SONY)

CCD CAMERA SIGNAL PROCESSOR

—TOP VIEW—



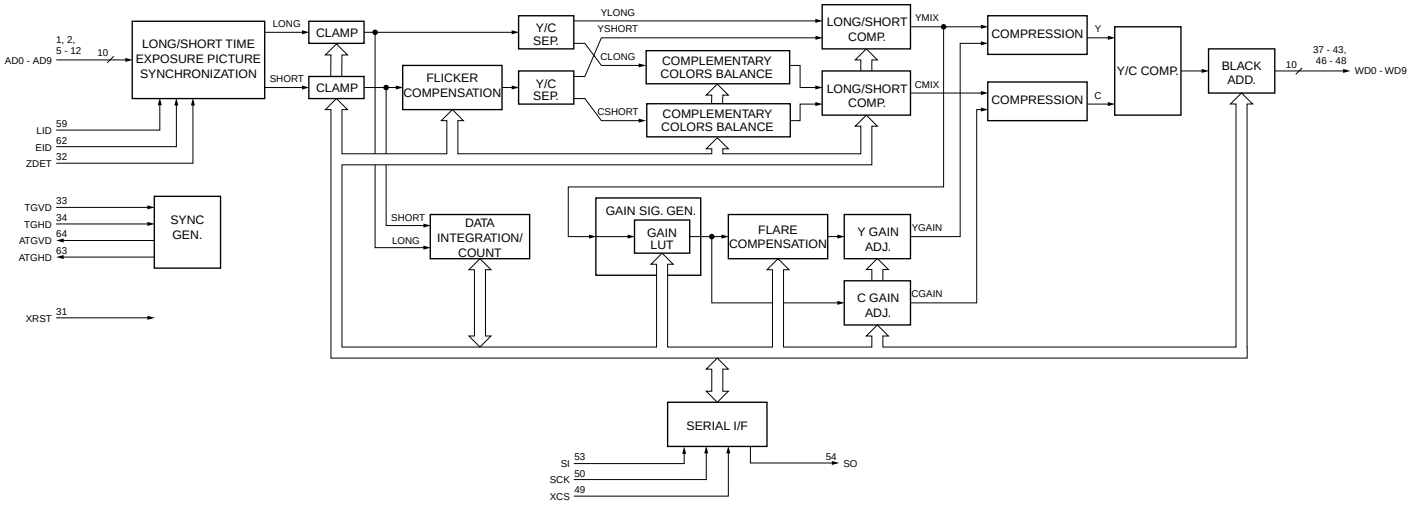
INPUTS

AD0 - AD9	: A/D SIGNAL
EID	: EXPOSURE TIME DISCRIMINATION
LID	: LINE DISCRIMINATION
MCKD	: MASTER CLOCK
SCK	: SERIAL CLOCK
SI	: SERIAL DATA
TEST0 - TEST3	: TEST
TGHD	: HORIZONTAL SYNC
TGVD	: VERTICAL SYNC
TIN0 - TIN9	: TEST
XCS	: CHIP SELECT FOR SERIAL COMMUNICATION
XRST	: RESET
ZDET	: DEFECT COMPENSATION PULSE

OUTPUTS

ATGHD	: PHASE ADVANCE HORIZONTAL SYNC SIGNAL OUTPUT FOR TG
ATGVD	: PHASE ADVANCE VERTICAL SYNC SIGNAL OUTPUT FOR TG
MCK	: DEMULTIPLY CLOCK
SO	: SERIAL DATA
WD0 - WD9	: WIDE DYNAMIC RANGE DATA

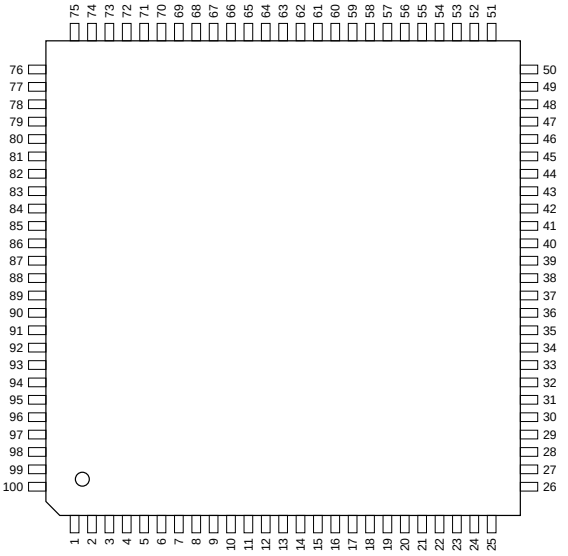
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	AD9	17	I	TIN9	33	I	TGVD	49	I	XCS
2	I	AD8	18	I	TIN8	34	I	TGHD	50	I	SCK
3	—	Vcc	19	—	Vcc	35	—	Vcc	51	—	Vcc
4	—	GND	20	—	GND	36	—	GND	52	—	GND
5	I	AD7	21	I	TIN7	37	O	WD9	53	I	SI
6	I	AD6	22	I	TIN6	38	O	WD8	54	O	SO
7	I	AD5	23	I	TIN5	39	O	WD7	55	I	TEST3
8	I	AD4	24	I	TIN4	40	O	WD6	56	I	TEST2
9	I	AD3	25	I	TIN3	41	O	WD5	57	I	TEST1
10	I	AD2	26	I	TIN2	42	O	WD4	58	I	TEST0
11	I	AD1	27	I	TIN1	43	O	WD3	59	I	LID
12	I	AD0	28	I	TIN0	44	—	GND	60	—	GND
13	—	GND	29	—	GND	45	—	Vcc	61	—	Vcc
14	—	Vcc	30	—	Vcc	46	O	WD2	62	I	EID
15	O	MCK	31	I	XRST	47	O	WD1	63	O	ATGHD
16	I	MCKD	32	I	ZDET	48	O	WD0	64	O	ATGVD



CXD9160TQ (SONY)

CAMERA SIGNAL PROCESSOR

—TOP VIEW—



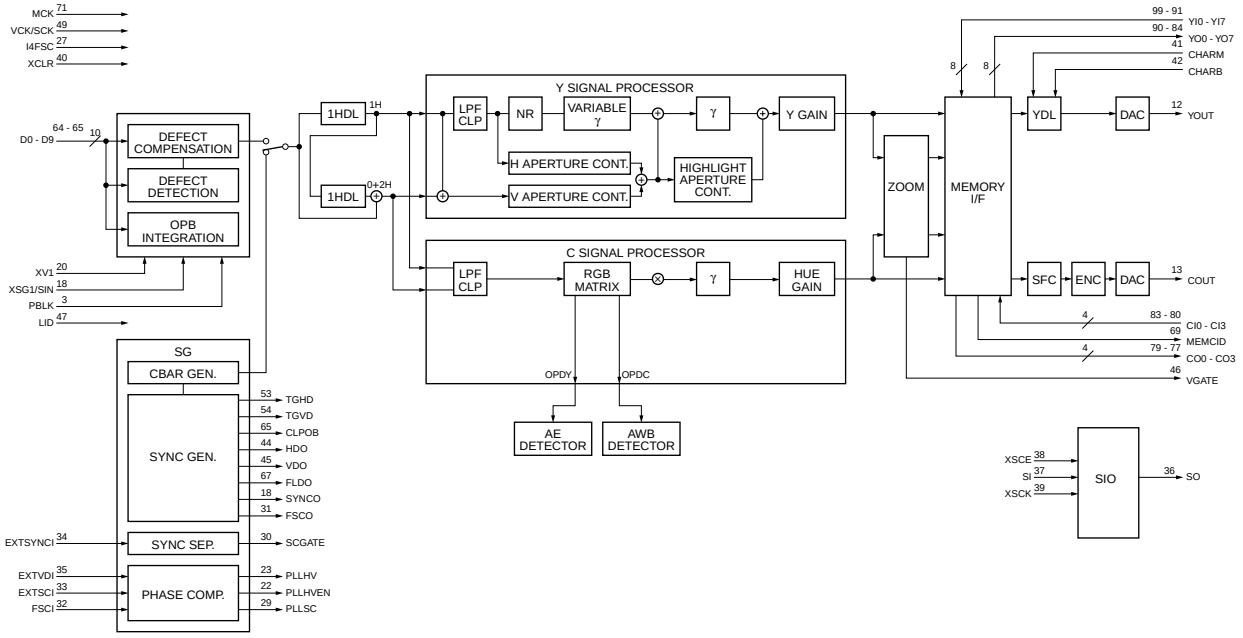
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	VCC (3.3 V)	26	—	GND	51	—	VCC (3.3 V)	76	—	GND
2	—	VCC (2 V)	27	I	I4FSC	52	—	VCC (2 V)	77	O	CO2
3	I	PBLK	28	I	TEST1	53	O	TGHD	78	O	CO1
4	I	BUNRI	29	O	PLLSC	54	O	TGVD	79	O	CO0
5	I	TMC1	30	O	SCGATE	55	I	D9	80	I	CI3
6	I	TMC2	31	O	FSCO	56	I	D8	81	I	CI2
7	I	MODE1	32	I	FSCI	57	I	D7	82	I	CI1
8	I	MODE2	33	I	EXTSCI	58	I	D6	83	I	CI0
9	I	TEB	34	I	EXTSYNCI	59	I	D5	84	O	YO7
10	—	D.VCC	35	I	EXTVDI	60	I	D4	85	O	YO6
11	—	A.VCC	36	O	SO	61	I	D3	86	O	YO5
12	O	YOUT	37	I	SI	62	I	D2	87	O	YO4
13	O	COUT	38	I	XSCE	63	I	D1	88	O	YO3
14	—	A.GND	39	I	XSCK	64	I	D0	89	O	YO2
15	—	D.GND	40	I	XCLR	65	O	CLPOB	90	O	YO1
16	I	AMC	41	I	CHARM	66	O	ADCK	91	O	YO0
17	I	SMC	42	I	CHARB	67	O	FLDO	92	I	YI7
18	I	XSG1	43	O	CGCK	68	O	MEMCK	93	I	YI6
19	O	SYNCO	44	O	HDO	69	O	MEMCID	94	I	YI5
20	I	XV1	45	O	VDO	70	—	GND	95	I	YI4
21	I	TEST0	46	O	VGATE	71	I	MCK	96	I	YI3
22	O	PLLHVEN	47	I	LID	72	—	GND	97	I	YI2
23	O	PLLHV	48	—	GND	73	O	CO3	98	I	YI1
24	—	VCC (2 V)	49	I	VCK	74	—	VCC (2 V)	99	I	YI0
25	—	VCC (3.3 V)	50	—	GND	75	—	VCC (3.3 V)	100	—	GND

INPUTS

AMC	: ATG MODE CONTROL
BUNRI	: DAC TEST MODE SELECT (FIXED:L)
CHARB	: CHARACTER CONTROL (BACK GROUND)
CHARM	: CHARACTER CONTROL (CHARACTER)
CI0 - CI3	: CHROMA SIGNAL MEMORY INTERFACE
D0 - D9	: DIGITAL SIGNAL DATA FROM A/D
EXTSCI	: EXT BURST
EXTSYNCI	: EXT SYNC SIGNAL (COMPOSITE SYNC/HORIZONTAL SYNC)
EXTVDI	: EXT SYNC SIGNAL (VERTICAL SYNC)
FSCI	: PLLSC INNER SUB CARRIER
I4FSC	: 4FSC (FOR SUB CARRIER GENERATOR)
LID	: LINE DISCRIMINATION SIGNAL
MCK	: MASTER CLOCK
MODE1, MODE2	: DAC TEST MODE SELECT (FIXED: L)
PBLK	: PREBLANKING PULSE
SI	: SERIAL DATA FOR CPU INTERFACE
SMC	: SCAN MODE SELECT
TEB	: MEMORY TEST ENABLE (NORMAL:H)
TEST1, TEST0	: TEST MODE SET (50k PULL DOWN)
TMC1, TMC2	: TEST MODE SET (FIXED: L)
VCK/SCK	: SG CLOCK (NTSC: 14.318MHz, PAL: 14.1875MHz) /SCAN CLOCK
XCLR	: SYSTEM RESET
XSCE	: CHIP SELECT FOR CPU INTERFACE
XSCK	: SERIAL CLOCK FOR CPU INTERFACE
XSG1/SIN	: CCD SENSOR ELECTRIC CHARGE READ PULSE/SCAN IN
XV1	: CCD VERTICAL REGISTER CLOCK
YI0 - YI7	: LUMINANCE SIGNAL MEMORY INTERFACE

OUTPUTS

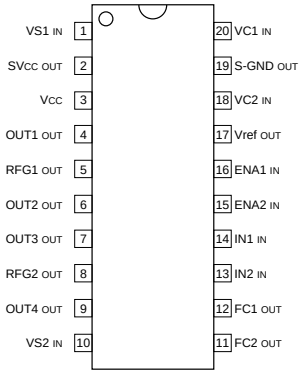
ADCK	: CLOCK FOR A/D CONVERTER
CGCK	: CLOCK FOR ON SCREEN DISPLAY IC
CLPOB	: OPB BLOCK CLAMP PULSE
CO0 - CO3	: CHROMA SIGNAL MEMORY INTERFACE
COUT	: CHROMA SIGNAL
FLDO	: FIELD DISCRIMINATION
FSCO	: SUB CARRIER
HDO	: HORIZONTAL SYNC
MEMCID	: COLOR DISCRIMINATION FOR MEMORY INTERFACE
MEMCK	: CLOCK FOR MEMORY INTERFACE
PLLHVEN	: H-PLL/V-PLL PHASE COMPARATOR ENABLE
PLLHV	: H-PLL/V-PLL PHASE COMPARATOR
PLLSC	: PHASE COMPARATOR OUTPUT FOR SUB CARRIER
SCGATE	: SUB CARRIER GATE PULSE
SO	: SERIAL DATA FOR CPU INTERFACE
SYNCO/SOUT	: COMPOSITE SYNC/SCAN OUT
TGHD	: HORIZONTAL SYNC SIGNAL OUTPUT FOR TG
TGVD	: VERTICAL SYNC SIGNAL OUTPUT FOR TG
VDO	: VERTICAL SYNC
VGATE	: ELECTRICAL ZOOM CONTROL FOR TG
YO0 - YO7	: LUMINANCE SIGNAL MEMORY INTERFACE
YOUT	: LUMINANCE SIGNAL



LB1940U-TLM-E (SANYO)

H BRIDGE MOTOR DRIVER

—TOP VIEW—

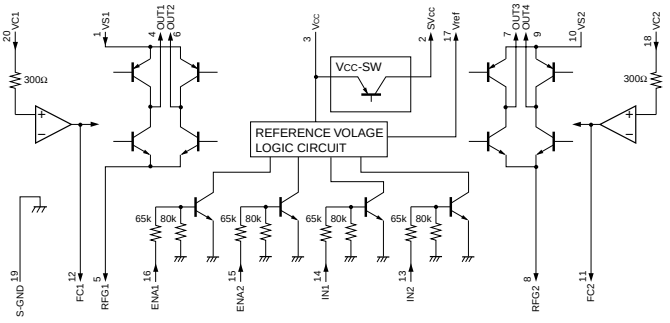


INPUTS

ENA1, ENA2 : CONTROL SIGNAL
IN1, IN2
VC1, VC2 : REFERENCE VOLTAGE FOR CONTROL
VS1, VS2 : POWER SUPPLY FOR MOTOR

OUTPUTS

FC1, FC2 : PHASE COMPENSATION CAPACITOR CONNECTION TERMINAL
OUT1 - OUT4 : MOTOR DRIVE
RFG1, RFG2 : CONSTANT-CURRENT DETECTION
SVCC, S-GND : POWER SUPPLY OUTPUT FOR CONTROL SYSTEM



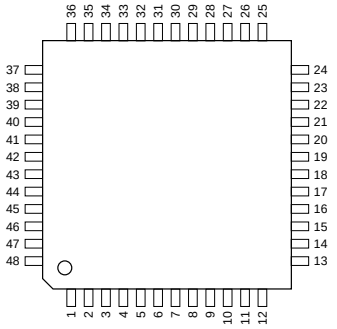
INPUTS				OUTPUTS					MODE
ENA		IN		OUT				SVCC	
1	2	1	2	1	2	3	4		
0	0	×	×	×	×	×	×	OFF	WAITING
1	×	1	×	0	1	×	×	ON	1ch REVERSE ROTATION
		0	×	1	0	×	×	ON	1ch NORMAL ROTATION
×	1	×	1	×	×	0	1	ON	2ch REVERSE ROTATION
		×	0	×	×	1	0	ON	2ch NORMAL ROTATION

0 : LOW LEVEL
1 : HIGH LEVEL
× : DON'T CARE

CXD3301R (SONY)

10-BIT SIGNAL PROCESSOR FOR CCD CAMERA

—TOP VIEW—



INPUTS

ADCK : MASTER CLOCK
CCDIN : CCD SIGNAL
CLPDM : DUMMY BIT CLAMP PULSE
CLPOB : OPTICAL BLACK CLAMP PULSE
PBLK : PREBLANKING
SCK : CPU CLOCK FOR SERIAL INTERFACE
SI : CPU DATA FOR SERIAL INTERFACE
XCS : CPU STROBE FOR SERIAL INTERFACE
XRST : RESET (H: NORMAL L: RESET)
XSHD : CCD SIGNAL DATA LEVEL SAMPLING PULSE
XSHP : CCD SIGNAL PRECHARGE LEVEL SAMPLING PULSE

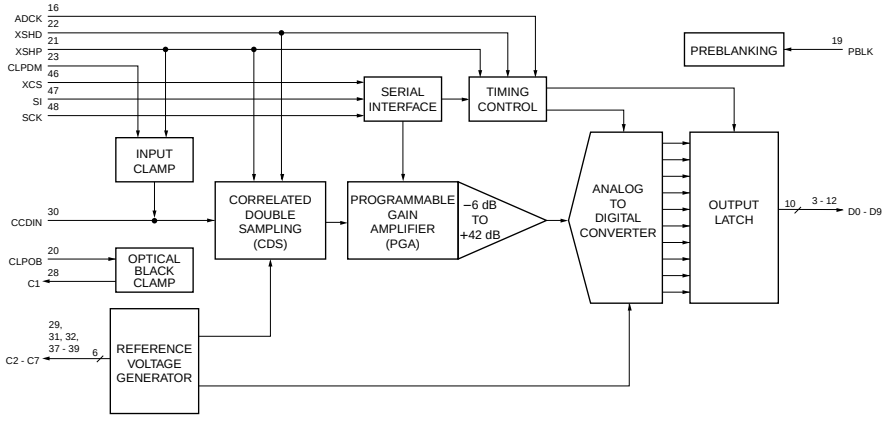
OUTPUTS

C1 : OPTICAL BLACK CLAMP CIRCUIT REFERENCE
C2 - C4 : INTERNAL REFERENCE
C5 : A/D CONVERTER COMMON MODE VOLTAGE
C6, C7 : A/D CONVERTER VOLTAGE REFERENCE
D0 - D9 : A/D CONVERTER

OTHER

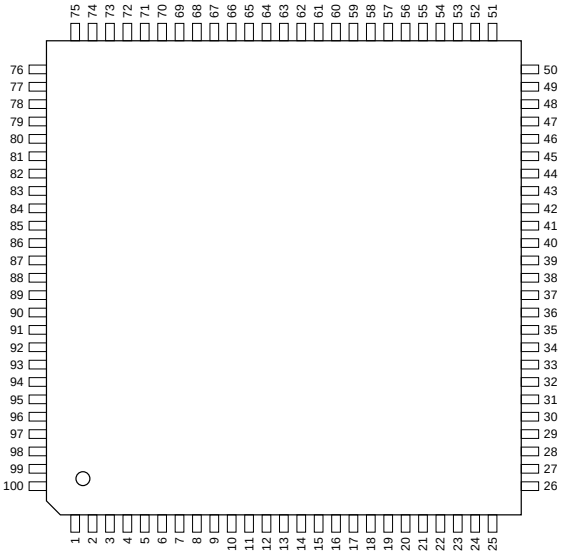
NC : NO CONNECTION

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	NC	13	—	D.Vcc	25	—	A.GND	37	O	C5
2	—	NC	14	—	GND	26	—	A.GND	38	O	C6
3	O	D0	15	—	A.GND	27	—	A.Vcc	39	O	C7
4	O	D1	16	I	ADCK	28	O	C1	40	—	A.Vcc
5	O	D2	17	—	A.GND	29	O	C2	41	—	A.GND
6	O	D3	18	—	A.Vcc	30	I	CCDIN	42	—	AGND
7	O	D4	19	I	PBLK	31	O	C3	43	—	NC
8	O	D5	20	I	CLPOB	32	O	C4	44	—	NC
9	O	D6	21	I	XSHP	33	—	A.Vcc	45	I	XRST
10	O	D7	22	I	XSHD	34	—	A.Vcc	46	I	XCS
11	O	D8	23	I	CLPDM	35	—	A.GND	47	I	SI
12	O	D9	24	—	A.Vcc	36	—	A.GND	48	I	SCK



TMP91CW12AF-4G61 (TOSHIBA)
TMP91CW12AF-4GU3 (TOSHIBA)

16-BIT MICROCONTROLLER
—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	VREFL	26	I/O	X2	51	I/O	P07/AD7	76	I/O	P35/$\overline{\text{BUSAK}}$
2	—	A.GND	27	—	D.GND	52	I/O	P10/AD8/A8	77	I/O	P36/R/$\overline{\text{W}}$
3	—	A.Vcc	28	I/O	X1	53	I/O	P11/AD9/A9	78	I/O	P37
4	I/O	P70/TA0IN	29	I	AM1	54	I/O	P12/AD10/A10	79	I/O	P40/$\overline{\text{CS0}}$
5	I/O	P71/TA1OUT	30	I	$\overline{\text{RESET}}$	55	I/O	P13/AD11/A11	80	I/O	P41/$\overline{\text{CS1}}$
6	I/O	P72/TA3OUT	31	I/O	P96/XT1	56	I/O	P14/AD12/A12	81	I/O	P42/$\overline{\text{CS2}}$
7	I/O	P73/TA4IN	32	I/O	P97/XT2	57	I/O	P15/AD13/A13	82	I/O	P43/$\overline{\text{CS3}}$
8	I/O	P74/TA5OUT	33	O	EMU0	58	I/O	P16/AD14/A14	83	I/O	P60/SCK
9	I/O	P75/TA7OUT	34	O	EMU1	59	I/O	P17/AD15/A15	84	I/O	P61/SO/SDA
10	I/O	P80/TB0IN0/INT5	35	I/O	PA0/INT1	60	I/O	P20/A0/A16	85	I/O	P62/SI/SCL
11	I/O	P81/TB0IN1/INT6	36	I/O	PA1/INT2	61	I/O	P21/A1/A17	86	I/O	P63/INT0
12	I/O	P82/TB0OUT0	37	I/O	PA2/INT3	62	—	D.GND	87	I/O	P64/SCOUT
13	I/O	P83/TB0OUT1	38	I/O	PA3/INT4	63	I	$\overline{\text{NMI}}$	88	I/O	P65
14	I/O	P84/TB1IN0/INT7	39	I/O	PA4	64	—	D.Vcc	89	—	D.Vcc
15	I/O	P85/TB1IN1/INT8	40	I/O	PA5	65	I/O	P22/A2/A18	90	I/O	P66
16	I/O	P86/TB1OUT0	41	I/O	PA6	66	I/O	P23/A3/A19	91	—	D.GND
17	I/O	P87/TB1OUT1	42	I/O	PA7	67	I/O	P24/A4/A20	92	I	P50/AN0
18	I/O	P90/TXD0	43	O	ALE	68	I/O	P25/A5/A21	93	I	P51/AN1
19	I/O	P91/RXD0	44	I/O	P00/AD0	69	I/O	P26/A6/A22	94	I	P52/AN2
20	I/O	P92/SCLK0/$\overline{\text{CTS0}}$	45	I/O	P01/AD1	70	I/O	P27/A7/A23	95	I	P53/AN3/$\overline{\text{ADTRG}}$
21	I/O	P93/TXD1	46	I/O	P02/AD2	71	O	P30/$\overline{\text{RD}}$	96	I	P54/AN4
22	I/O	P94/RXD1	47	I/O	P03/AD3	72	O	P31/$\overline{\text{WR}}$	97	I	P55/AN5
23	I/O	P95/SCLK1/$\overline{\text{CTS1}}$	48	I/O	P04/AD4	73	I/O	P32/$\overline{\text{HWR}}$	98	I	P56/AN6
24	I	AM0	49	I/O	P05/AD5	74	I/O	P33/$\overline{\text{WAIT}}$	99	I	P57/AN7
25	—	D.Vcc	50	I/O	P06/AD6	75	I/O	P34/$\overline{\text{BUSRQ}}$	100	I	VREFH

INPUTS

$\overline{\text{ADTRG}}$	: A/D CONVERTER TRIGGER
AM0, AM1	: MODE SELECT
AN0 - AN7	: ANALOG
CTS0, CTS1	: SERIAL DATA CLEAR TO SEND
$\overline{\text{INT0}}$ - $\overline{\text{INT8}}$	: INTERRUPT REQUEST
$\overline{\text{NMI}}$	: NON-MASKABLE INTERRUPT REQUEST
P50 - P57	: P5 PORT
$\overline{\text{RESET}}$	: RESET
RXD0, RXD1	: SERIAL RECEIVING DATA
SI	: SERIAL BUS INTERFACE DATA
TA0IN, TA4IN	: 8-BIT TIMER
TB0IN0, TB0IN1	: 16-BIT TIMER
TB1IN0, TB1IN1	
VREFH, VREFL	: REFERENCE VOLTAGE FOR A/D CONVERTER
XT1, XT2	: LOW FREQUENCY OSCILLATOR

OUTPUTS

A0 - A15	: ADDRESS BUS
$\overline{\text{ALE}}$	: ADDRESS LATCH ENABLE
$\overline{\text{BUSAK}}$	: BUS ACKNOWLEDGE
$\overline{\text{BUSRQ}}$	: BUS REQUEST
$\overline{\text{CS0}}$ - $\overline{\text{CS3}}$	: CHIP SELECT
EMU0, EMU1	: OPEN
$\overline{\text{HWR}}$	: HIGH ORDER DIGIT WRITE
P30	: P30 PORT
P31	: P31 PORT
$\overline{\text{RD}}$	: READ
R/$\overline{\text{W}}$	: READ/WRITE
SCLK0, SCLK1	: SERIAL CLOCK
SCOUT	: SYSTEM CLOCK
SO	: SERIAL BUS INTERFACE DATA
TA1OUT - TA7OUT	: 8-BIT TIMER
TB0OUT0, TB0OUT1	: 16-BIT TIMER
TB1OUT0, TB1OUT1	
TXD0, TXD1	: SERIAL TRANSMITTING DATA
$\overline{\text{WAIT}}$	: WAIT
$\overline{\text{WR}}$	: WRITE

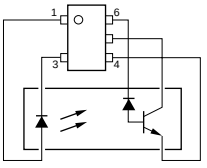
INPUTS/OUTPUTS

AD0 - AD15	: ADDRESS/DATA BUS
P00 - P07	: P0 PORT
P10 - P17	: P1 PORT
P20 - P27	: P2 PORT
P32 - P37	: P3 PORT
P40 - P43	: P4 PORT
P60 - P66	: P6 PORT
P70 - P75	: P7 PORT
P80 - P87	: P8 PORT
P90 - P97	: P9 PORT
PA0 - PA7	: PA PORT
SCK	: SERIAL BUS INTERFACE CLOCK
SCL, SCLK0, SCLK1	: SERIAL CLOCK
SDA	: SERIAL DATA
X1, X2	: CRYSTAL OSCILLATOR

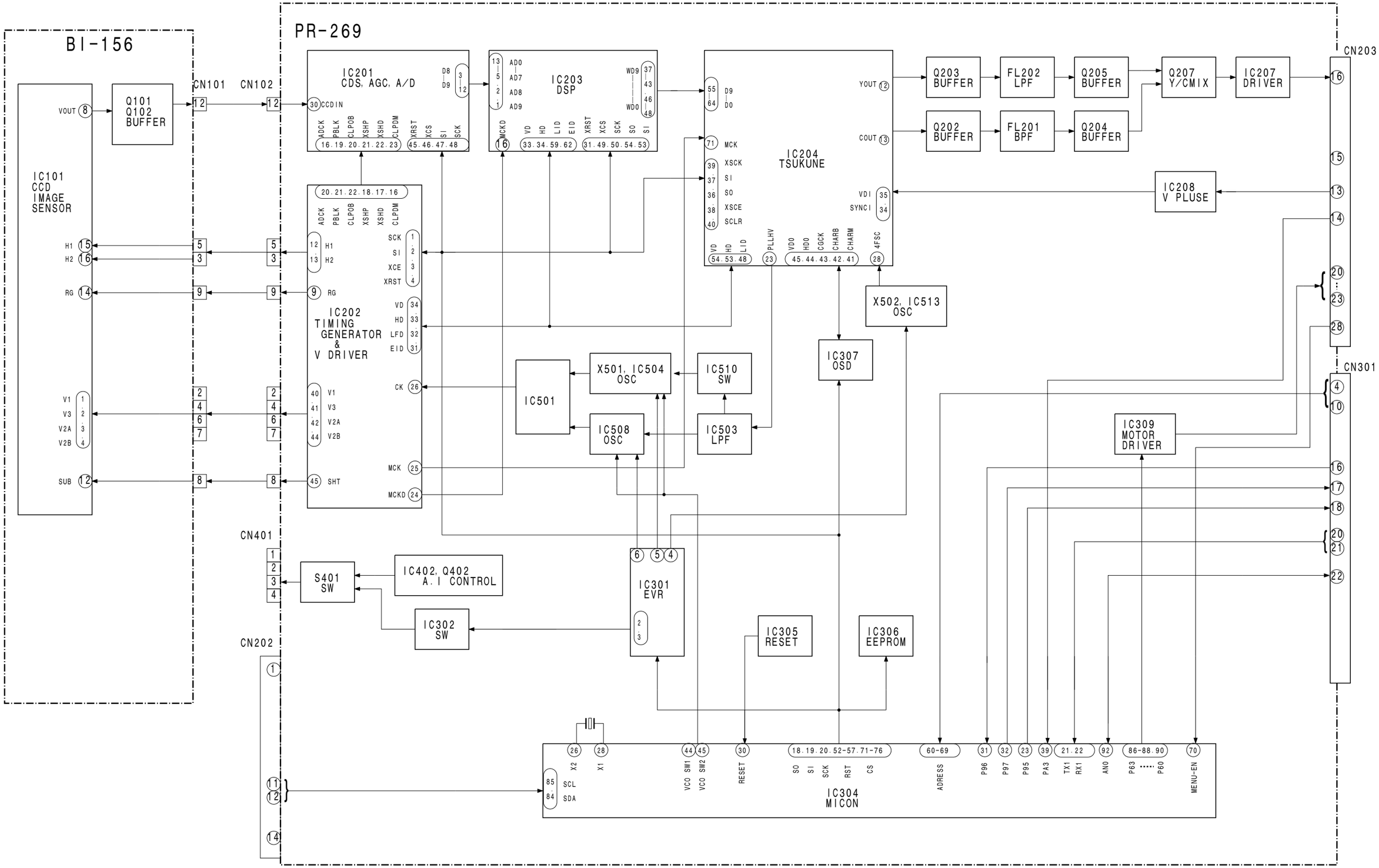
OTHER

TLP112

—TOP VIEW—

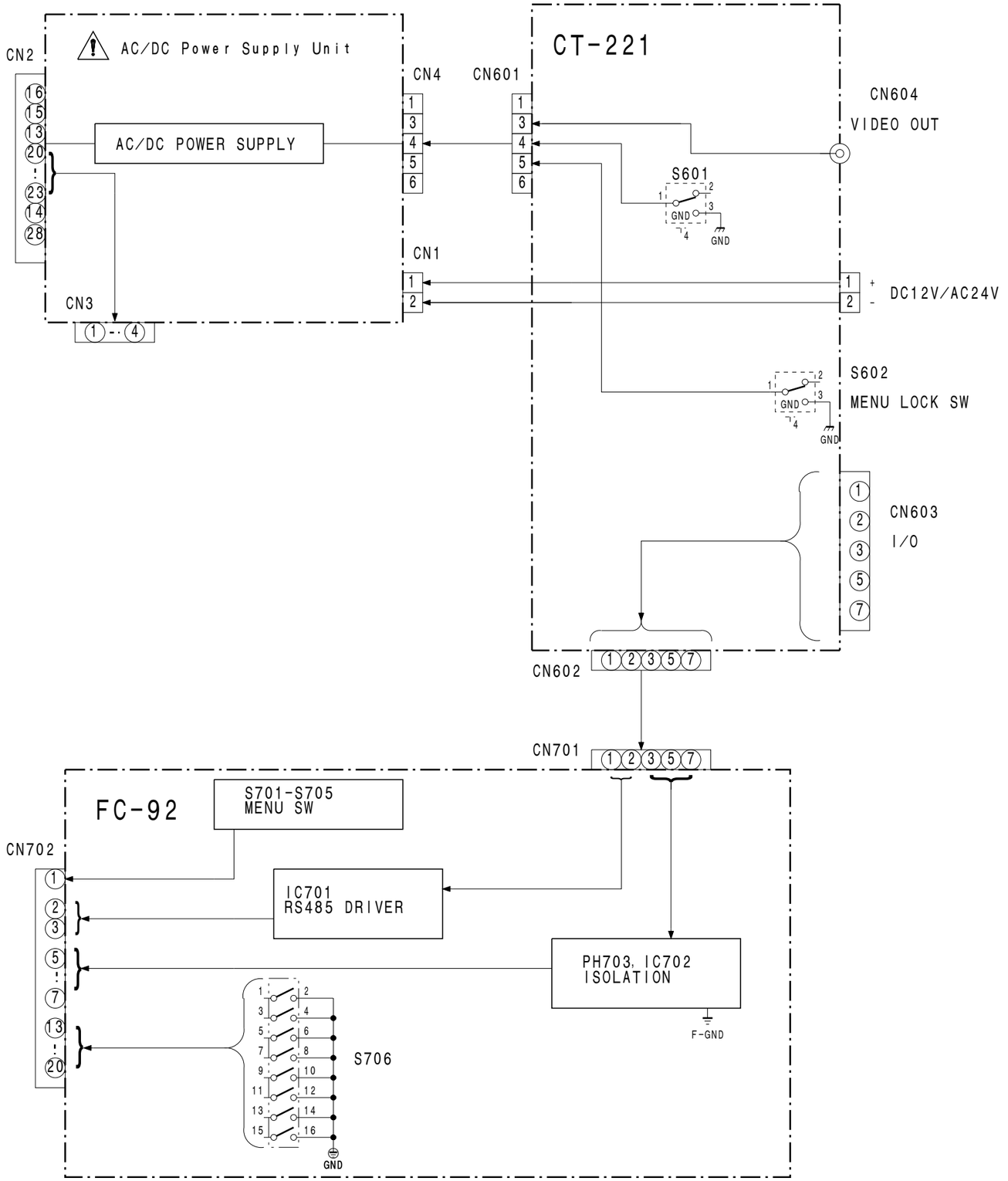


Section 6
Block Diagrams



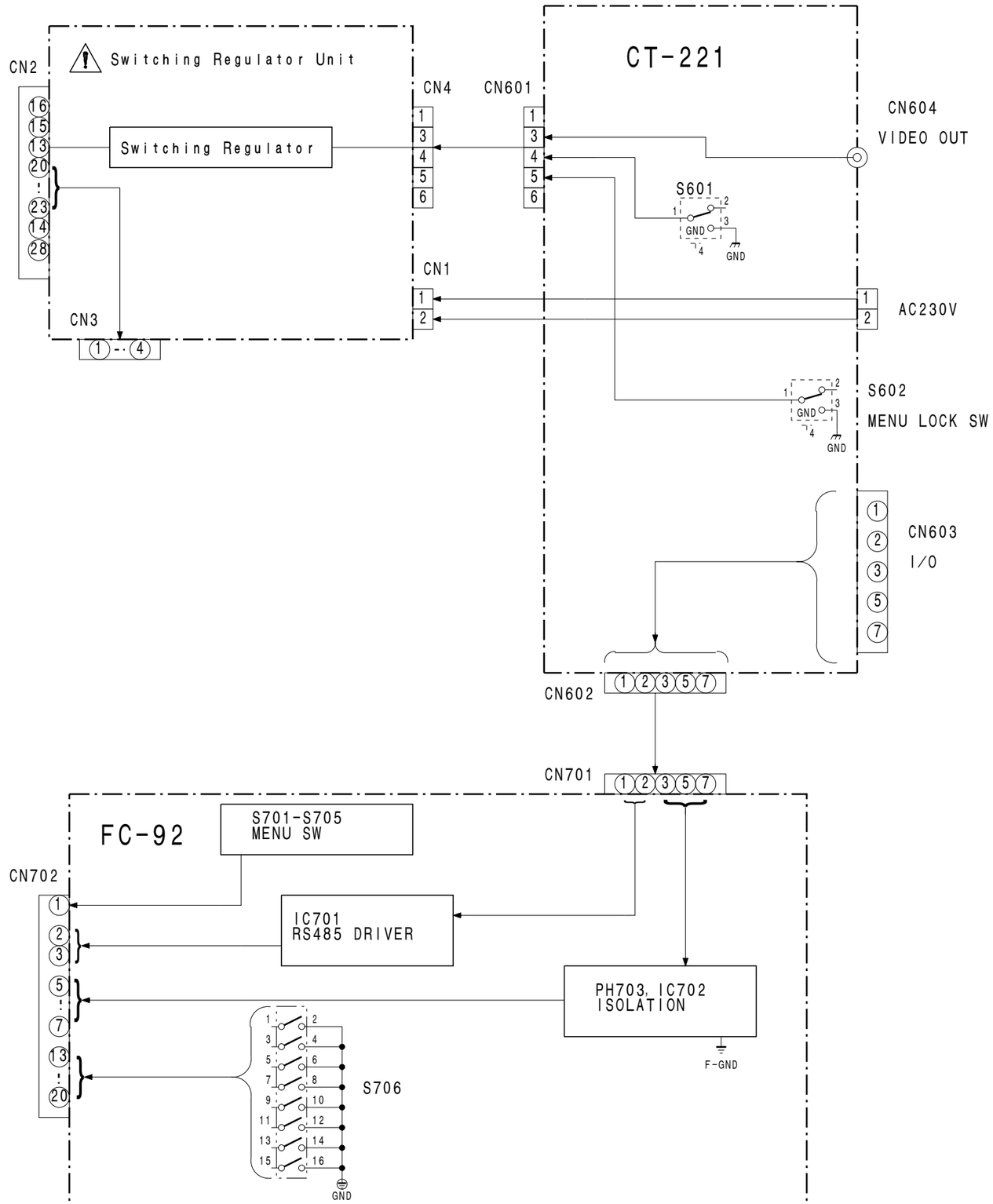
Overall

Overall (for SSC-DC593/DC593P)



Overall
for SSC-DC593/DC593P

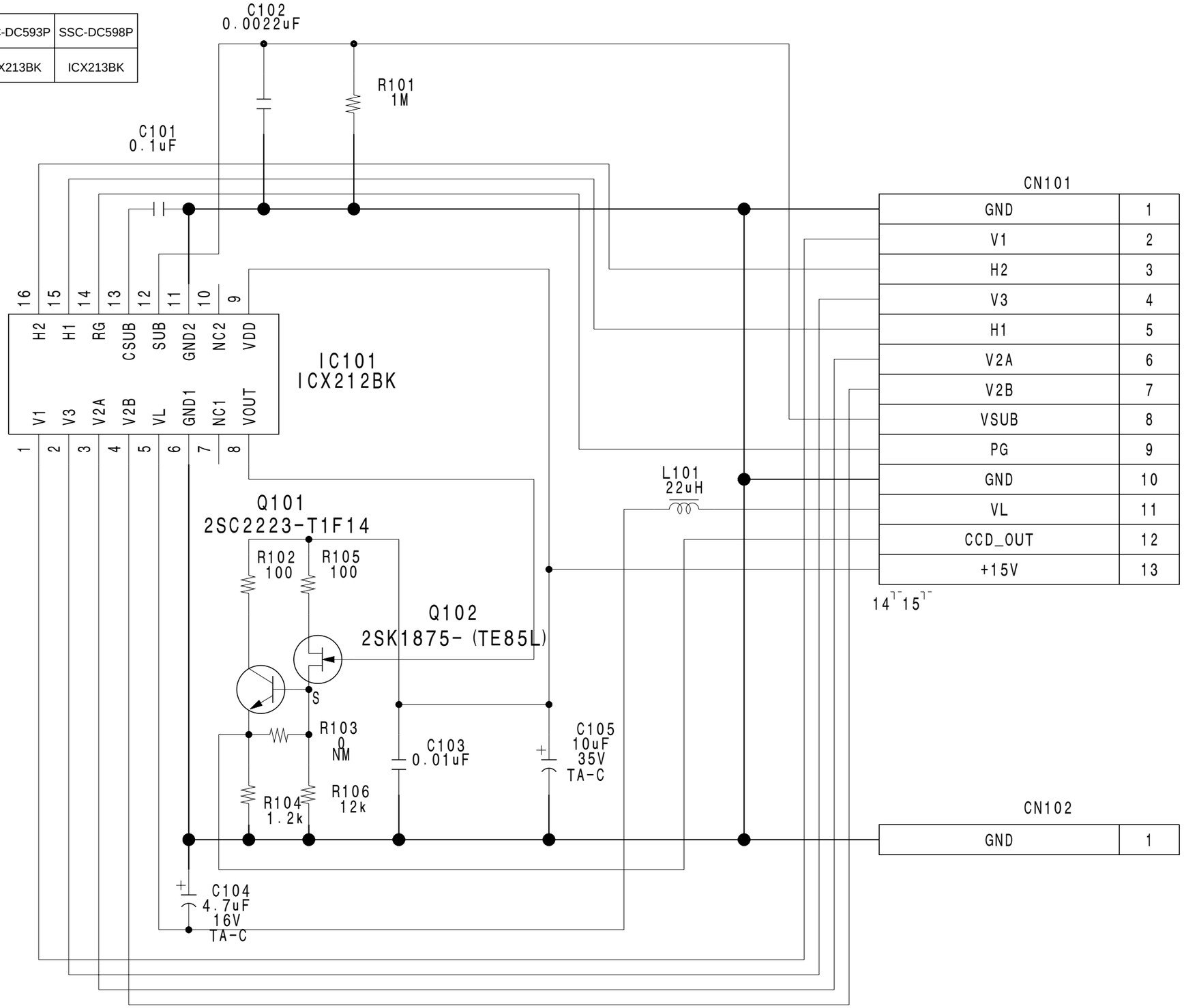
6-2

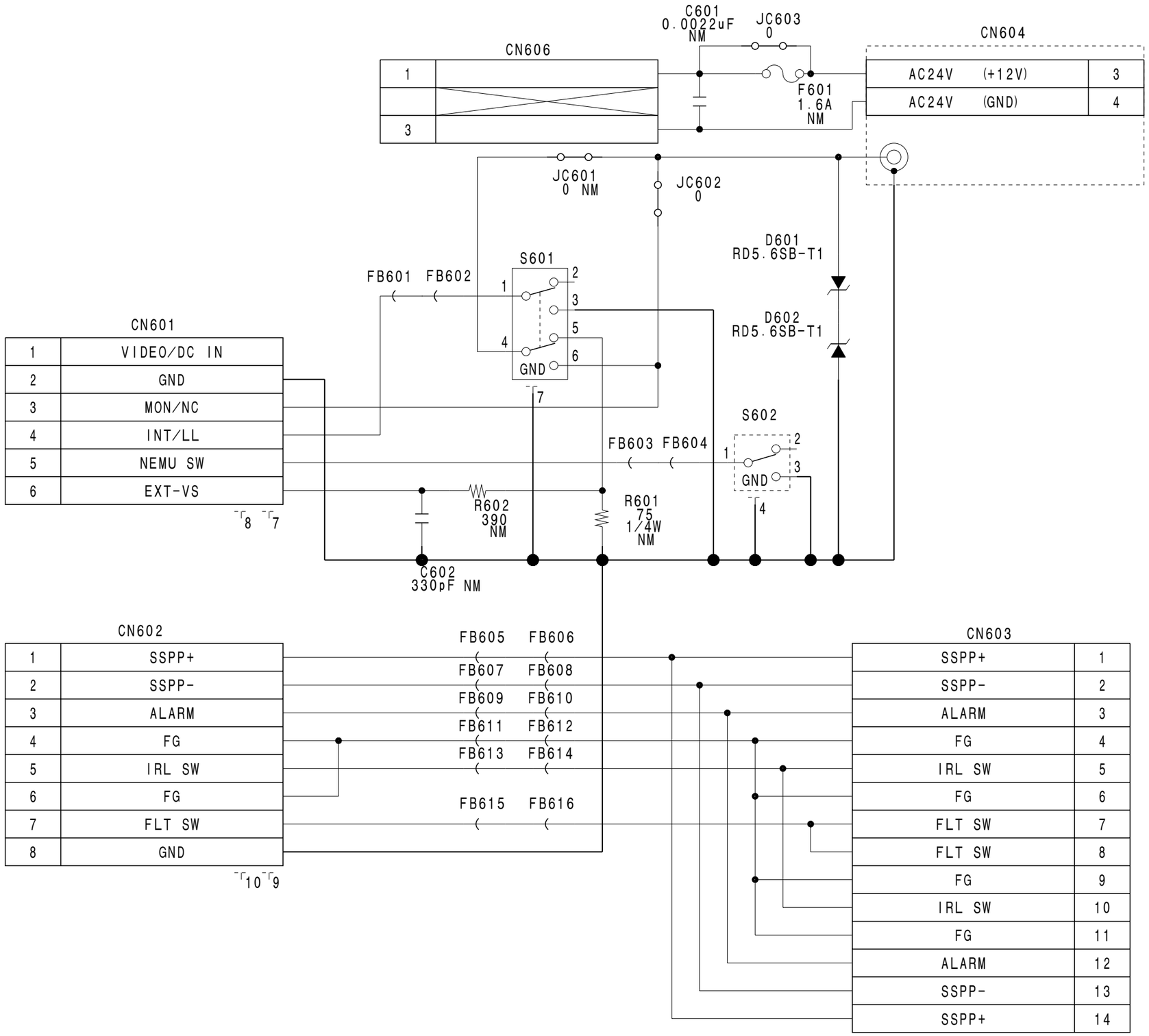


Overall
for SSC-DC598P

Section 7
Schematic Diagrams

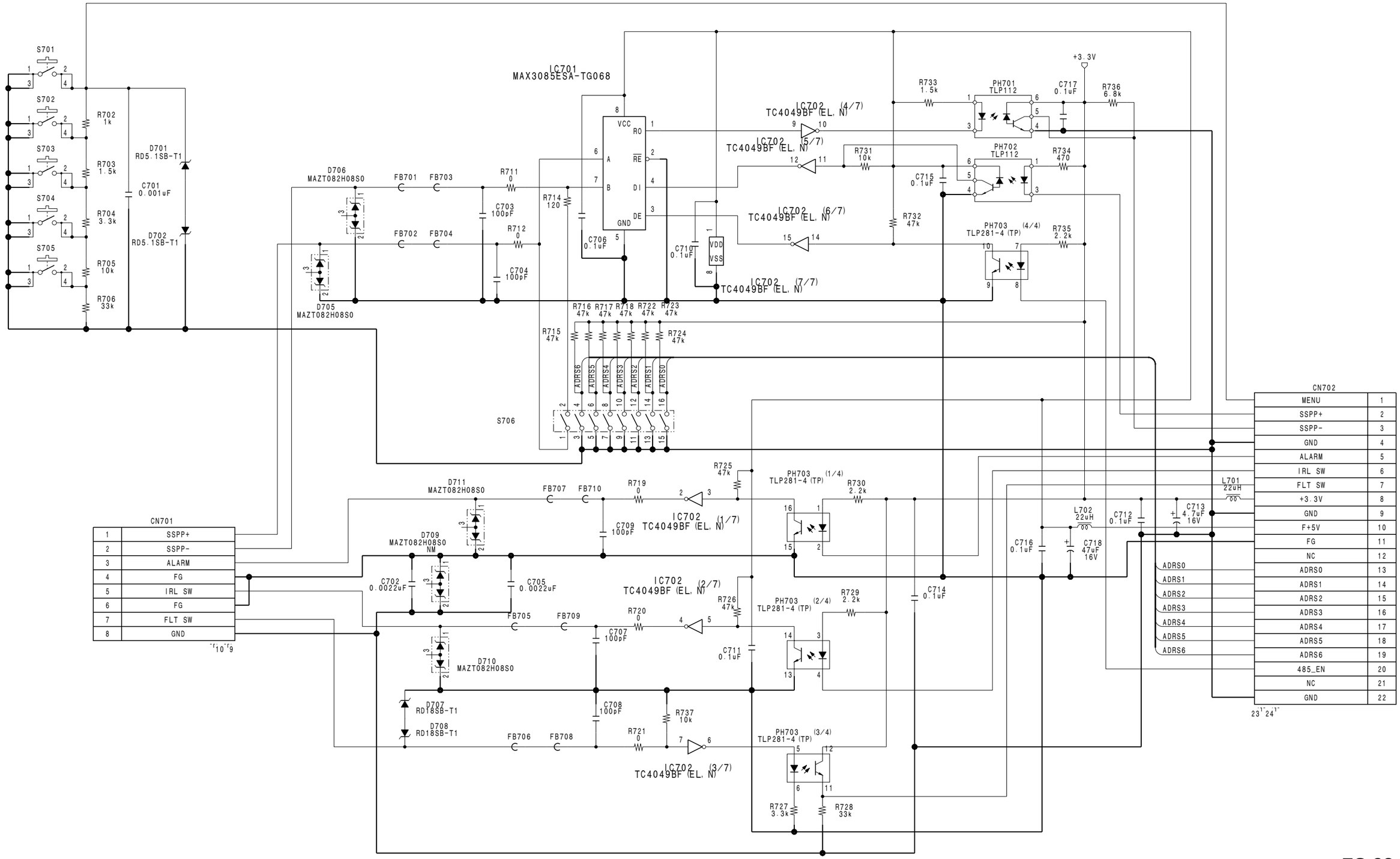
	SSC-DC593	SSC-DC593P	SSC-DC598P
IC101	ICX212BK	ICX213BK	ICX213BK





	SSC-DC593	SSC-DC593P	SSC-DC598P
CN604	169445511	169445511	178514611
CN606	196113511	196113511	NM

7-2 7-2


S701
S702
S703
S704
S705
R702 1k
R703 1.5k
R704 3.3k
R705 10k
R706 33k
D701 RD5.1SB-T1
D702 RD5.1SB-T1
C701 0.001uF
IC701 MAX3085ESA-TG068
VCC
GND
RO
RE
DI
DE
A
B
D706 MAZT082H08S0
D705 MAZT082H08S0
FB701
FB703
FB702
FB704
R711 0
R712 0
R714 120
C703 100pF
C704 100pF
C706 0.1uF
C710 0.1uF
VDD
VSS
IC702 TC4049BF (EL, N) (4/7)
IC702 TC4049BF (EL, N) (5/7)
IC702 TC4049BF (EL, N) (6/7)
IC702 TC4049BF (EL, N) (7/7)
R733 1.5k
R731 10k
R732 47k
C715 0.1uF
PH701 TLP112
PH702 TLP112
PH703 TLP281-4 (TP) (4/4)
C717 0.1uF
R736 6.8k
R734 470
R735 2.2k
+3.3V
R716 47k
R717 47k
R718 47k
R722 47k
R723 47k
R715 47k
R724 47k
ADRS6
ADRS5
ADRS4
ADRS3
ADRS2
ADRS1
ADRS0
S706
R725 47k
D711 MAZT082H08S0
FB707
FB710
R719 0
IC702 TC4049BF (EL, N) (1/7)
PH703 TLP281-4 (TP) (1/4)
R730 2.2k
C709 100pF
D709 MAZT082H08S0 NM
C702 0.0022uF
C705 0.0022uF
IC702 TC4049BF (EL, N) (2/7)
R726 47k
PH703 TLP281-4 (TP) (2/4)
R729 2.2k
FB705
FB709
R720 0
C707 100pF
C711 0.1uF
D710 MAZT082H08S0
D707 RD18SB-T1
D708 RD18SB-T1
C708 100pF
R737 10k
FB706
FB708
R721 0
IC702 TC4049BF (EL, N) (3/7)
PH703 TLP281-4 (TP) (3/4)
R727 3.3k
R728 33k
C714 0.1uF
L702 22uH
C712 0.1uF
C713 4.7uF 16V
C716 0.1uF
C718 47uF 16V
L701 22uH
CN701
1 SSPP+
2 SSPP-
3 ALARM
4 FG
5 IRL SW
6 FG
7 FLT SW
8 GND
CN702
1 MENU
2 SSPP+
3 SSPP-
4 GND
5 ALARM
6 IRL SW
7 FLT SW
8 +3.3V
9 GND
10 F+5V
11 FG
12 NC
13 ADRS0
14 ADRS1
15 ADRS2
16 ADRS3
17 ADRS4
18 ADRS5
19 ADRS6
20 485_EN
21 NC
22 GND

FC-92

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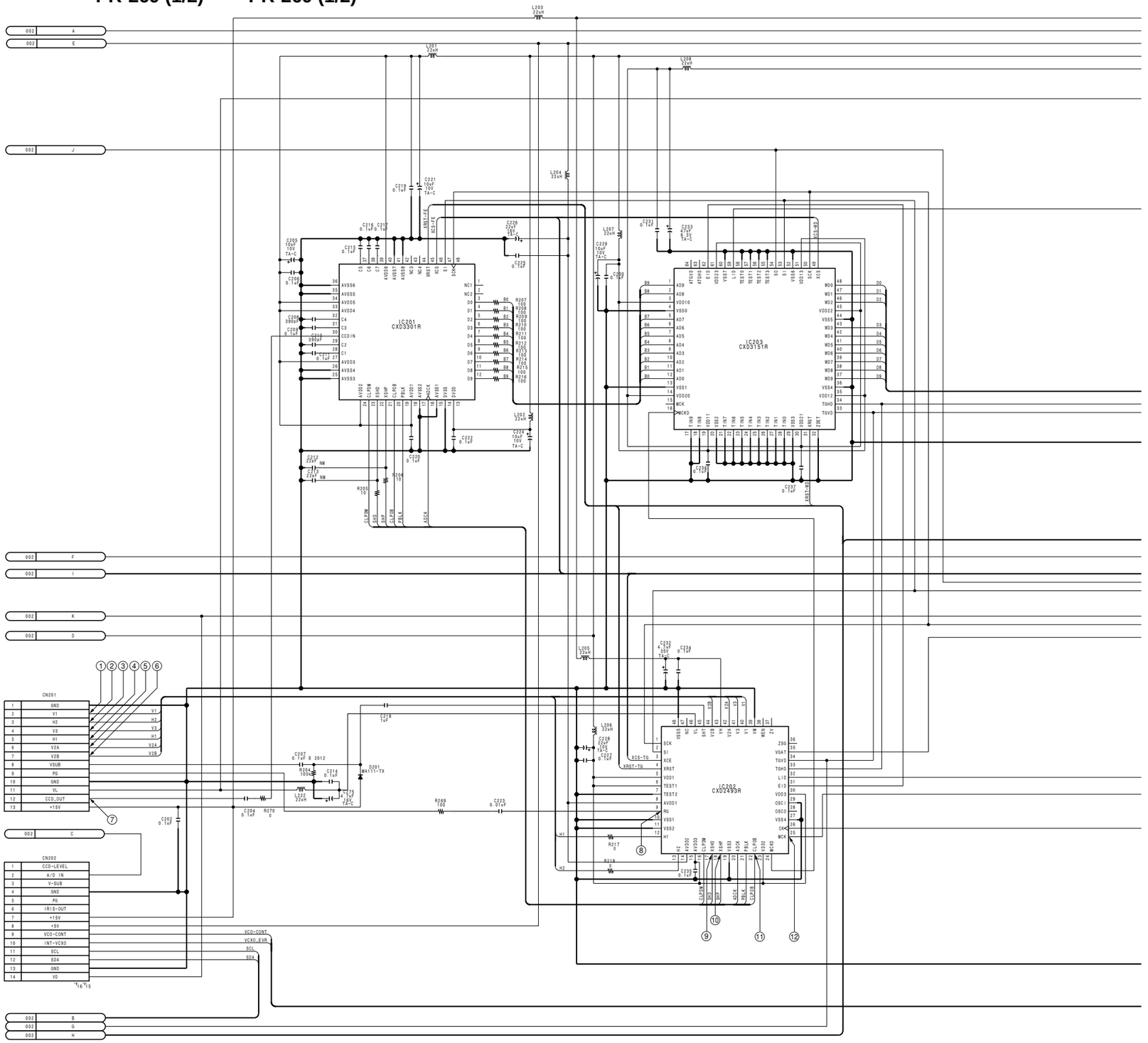
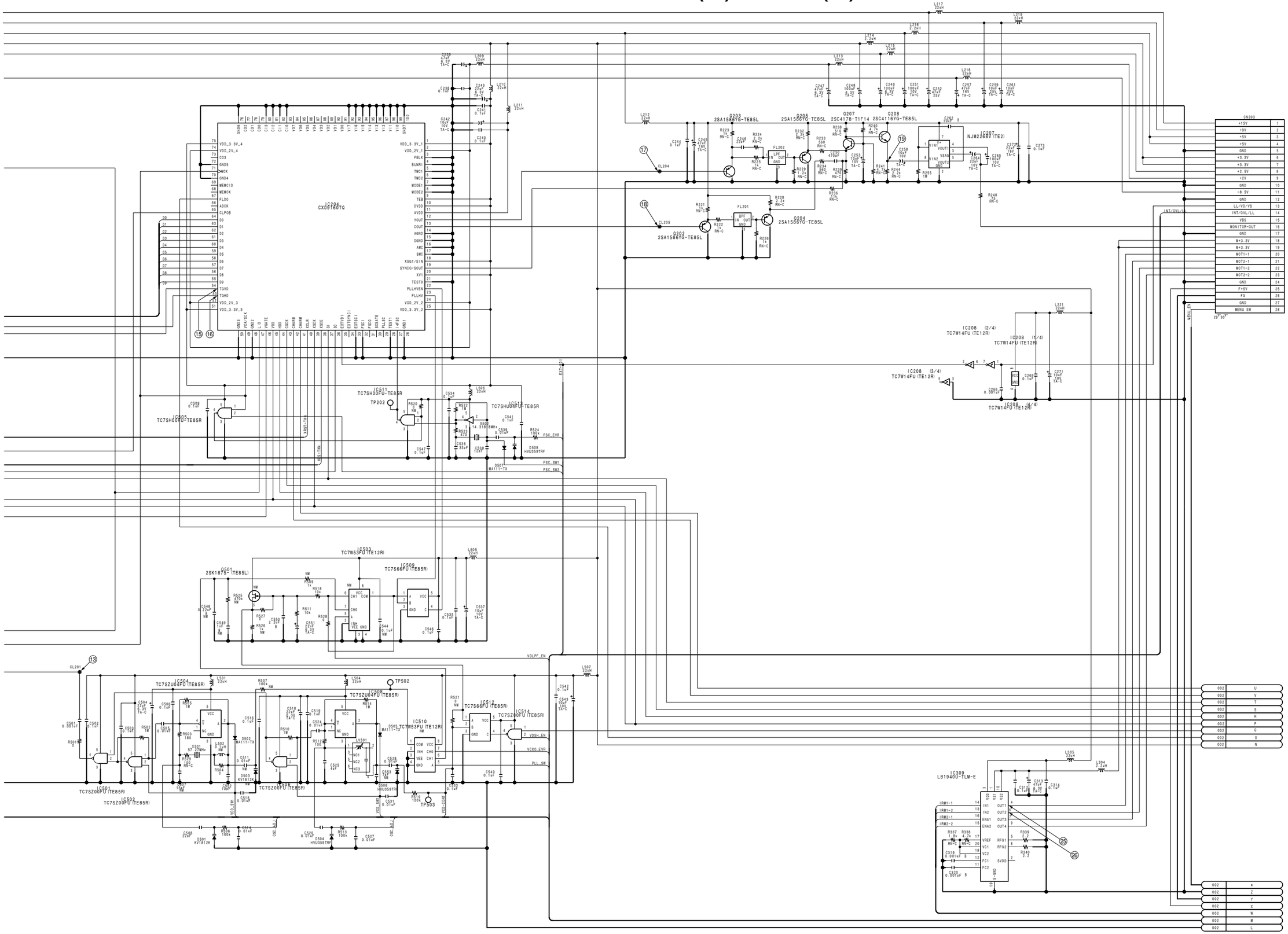
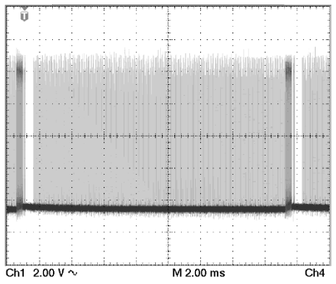

IC201
CXD3301R
IC203
CXD3151R
LC202
CXD2493R
CN201
GND
V1
H2
V3
H1
V2A
V2B
VSUB
PG
GND
VL
CCD_OUT
+15V
CN202
CCD-LEVEL
A/D IN
V-SUB
GND
PG
IRIS-OUT
+15V
+5V
VCO-CONT
INT-VCXO
SCL
SDA
GND
VD
VCO-CONT
VCXO_EVR
SCL
SDA

7-4


IC2204
CXD9180TQ
IC511
TC7SH00FU-TE85R
IC512
TC7SHU04FU-TE85R
IC503
TC7W53FU (TE12R)
IC508
TC7S66FU (TE85R)
IC504
TC7SZU04FU (TE85R)
IC510
TC7W53FU (TE12R)
IC513
TC7S66FU (TE85R)
IC514
TC7SZ00FU (TE85R)
IC501
TC7SZ00FU (TE85R)
IC502
TC7SZ00FU (TE85R)
IC505
TC7SH00FU-TE85R
Q501
2SK1875-(TE85L)
Q202
2SA1586YG-TE85L
Q203
2SA1586YG-TE85L
Q204
2SA1586YG-TE85L
Q205
2SA1586YG-TE85L
Q207
2SC4178-T1F14
Q208
2SC4116YG-TE85L
IC207
NJM2268V(TE2)
IC208 (1/4)
TC7W14FU (TE12R)
IC208 (2/4)
TC7W14FU (TE12R)
IC208 (3/4)
TC7W14FU (TE12R)
IC208 (4/4)
TC7W14FU (TE12R)
IC309
LB1940U-TLM-E
TP202
TP502
TP503
X501
57.33MHz
X502
14.318MHz
FL201
FL202
CN203
+15V
+9V
+5V
+5V
GND
+3.3V
+3.3V
+2.5V
+2V
GND
-8.5V
GND
LL/VD/VS
INT/OVL/LL
VBS
MONITOR-OUT
GND
M+3.3V
M+3.3V
MOT1-1
MOT2-1
MOT1-2
MOT2-2
GND
F+5V
FG
GND
MENU SW
29"30"
U
V
T
S
R
P
Q
O
N
+
Z
Y
X
W
M
L
VDLPF_EN
VDSH_EN
VCXO_EVR
PLL_RW
FSC_SW1
FSC_SW2
FSC_EVR
INT/OVL/LL
MENU SW

PR-269 (1/2)

①



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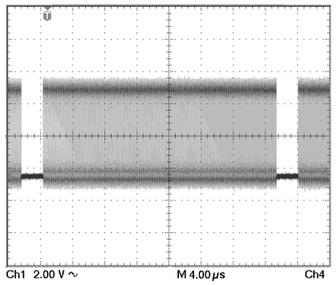

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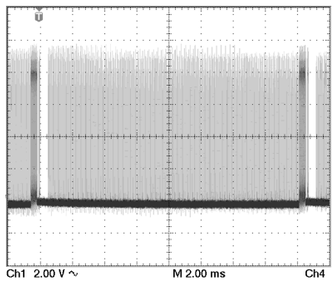

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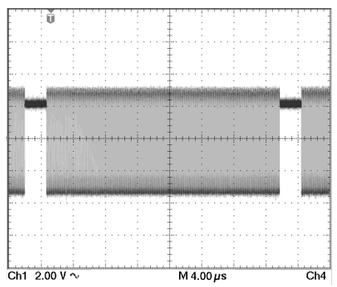

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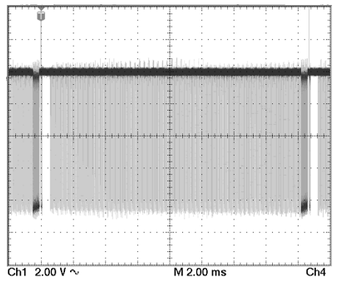

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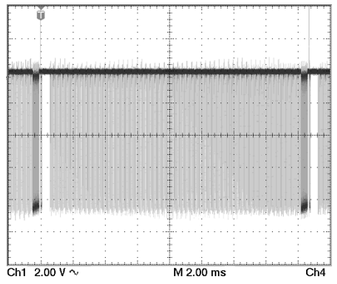

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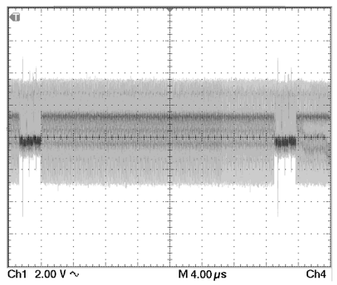

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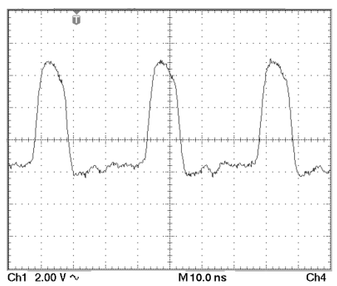

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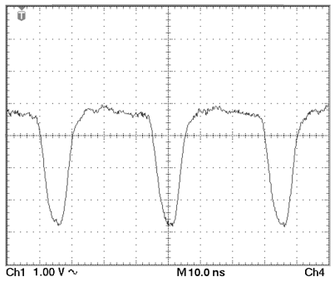

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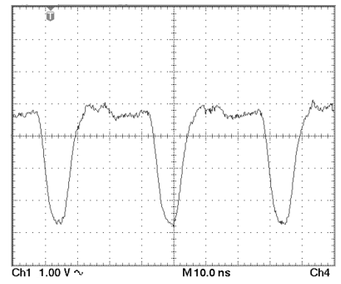

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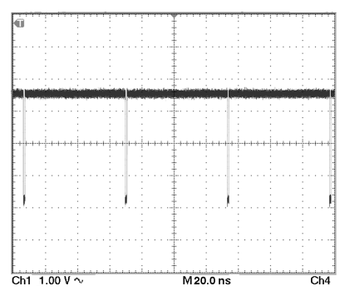

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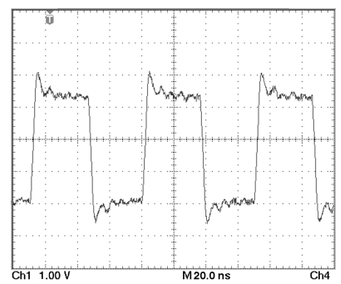

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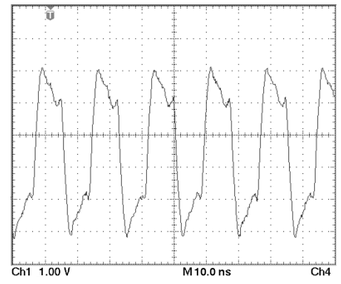

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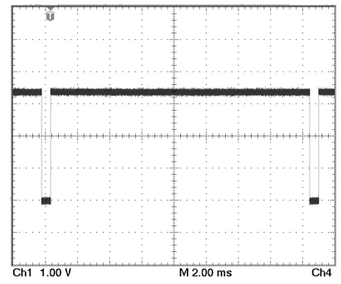

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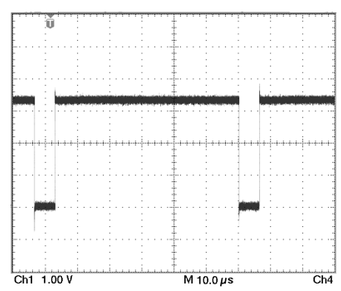

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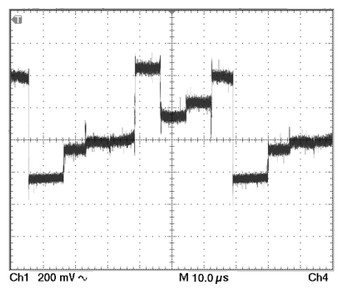

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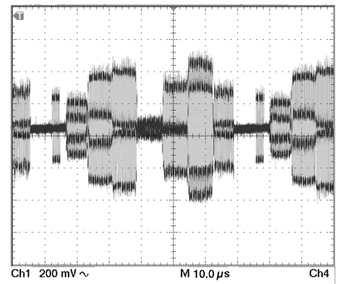

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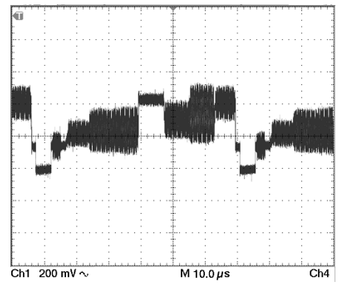

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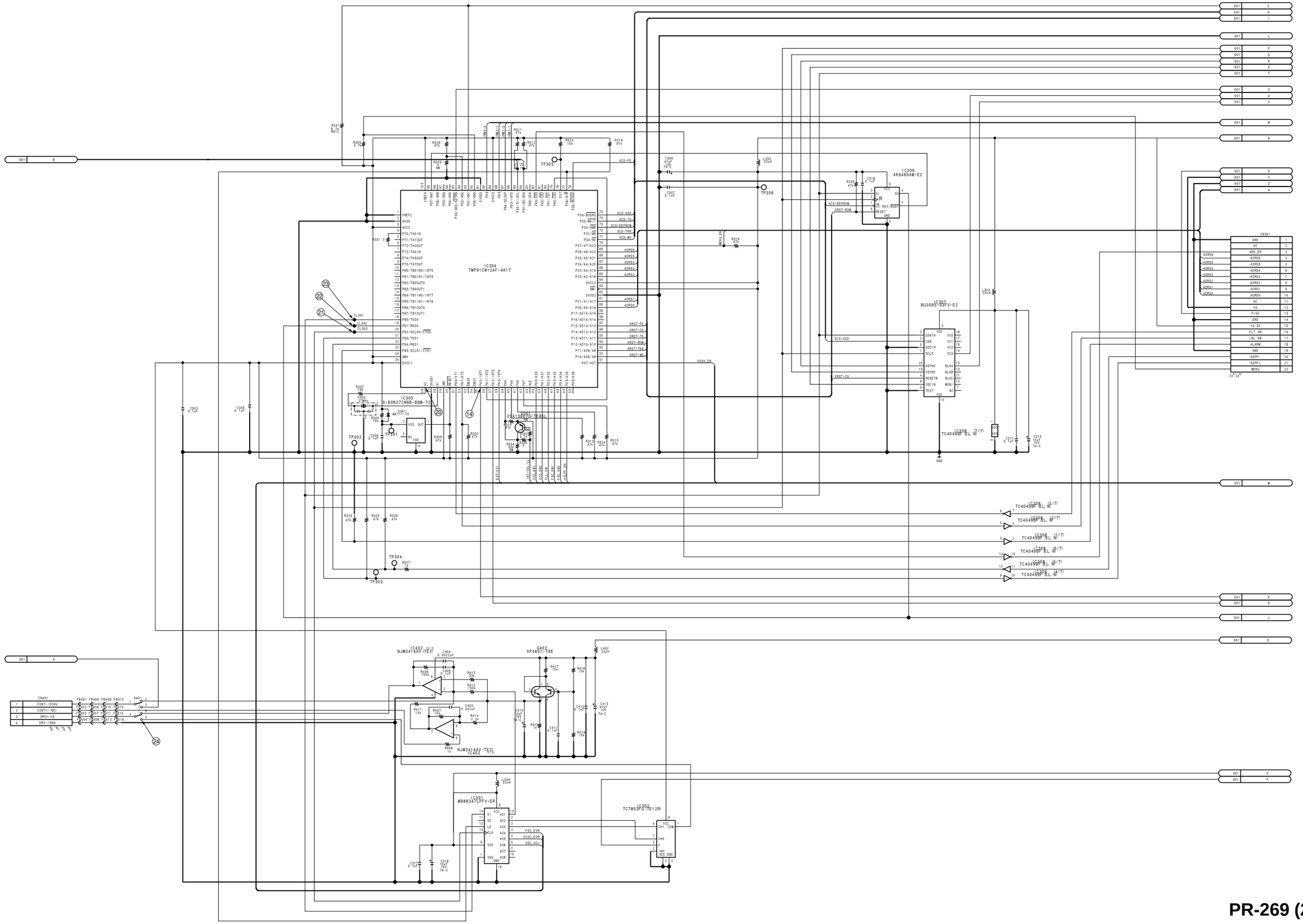
IC304
TMP91CW12AF-4K17
IC305
S-80827CNNB-B8M-T2
IC306
AK6480AM-E2
IC307
BU3095-05FV-E2
IC308
TC4049BF (EL,N)
IC309
TC7W53FU(TE12R)
IC401
NJM3414AV(TE2)
IC402
NJM3414AV(TE2)
IC301
MB88347LPFV-ER
Q302
2SA1362TG-TR-BSL
Q402
XP4601-TXE
CN301
CN401
TP301
TP302
TP303
TP304
TP305
TP306
XCS-FE
XCS-OSD
XCS-TG
XCS-EEPROM
XCS-TKN
XCS-MOS
XRST-FE
XRST-CG
XRST-TG
XRST-ROM
XRST-TKN
XRST-MO
VOSH-EN
FSC_EVR
VCXO_EVR
OSC_ADJ
CONT-/DCPV
CONT+/ NCI
DRV+/VS
DRV-/GND

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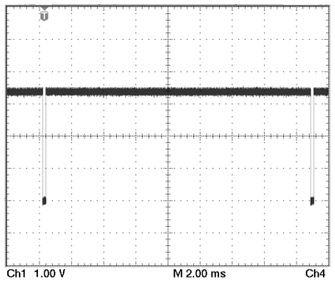
⑭



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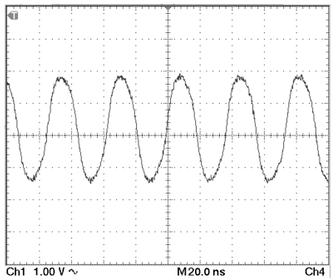

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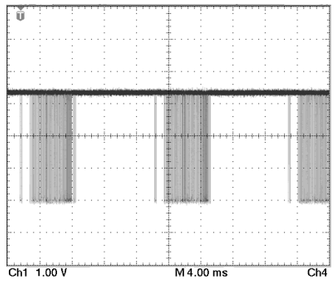

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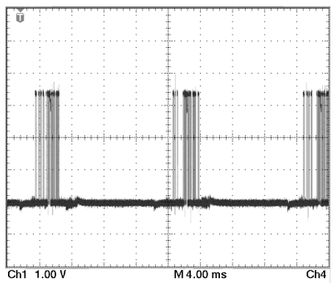

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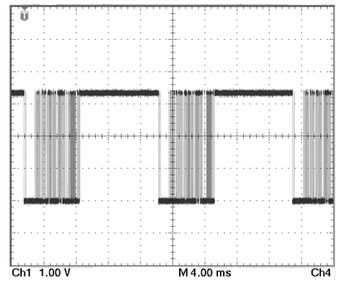

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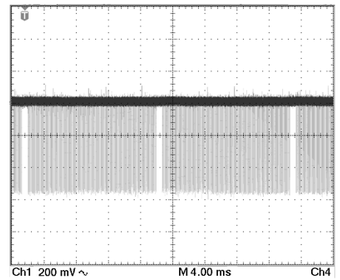

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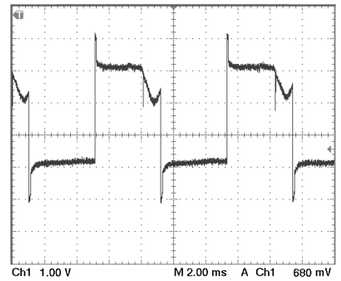

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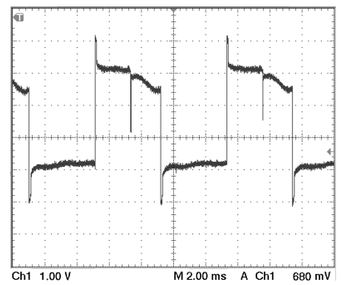

7-8

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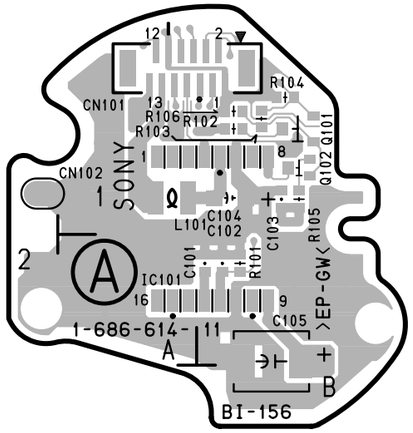
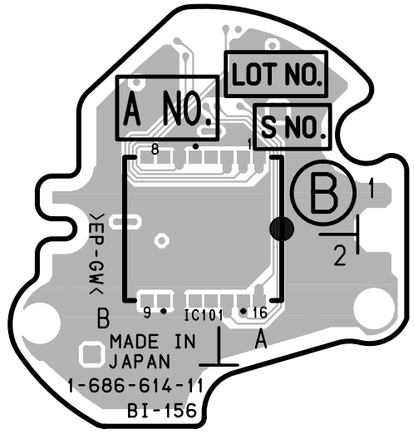
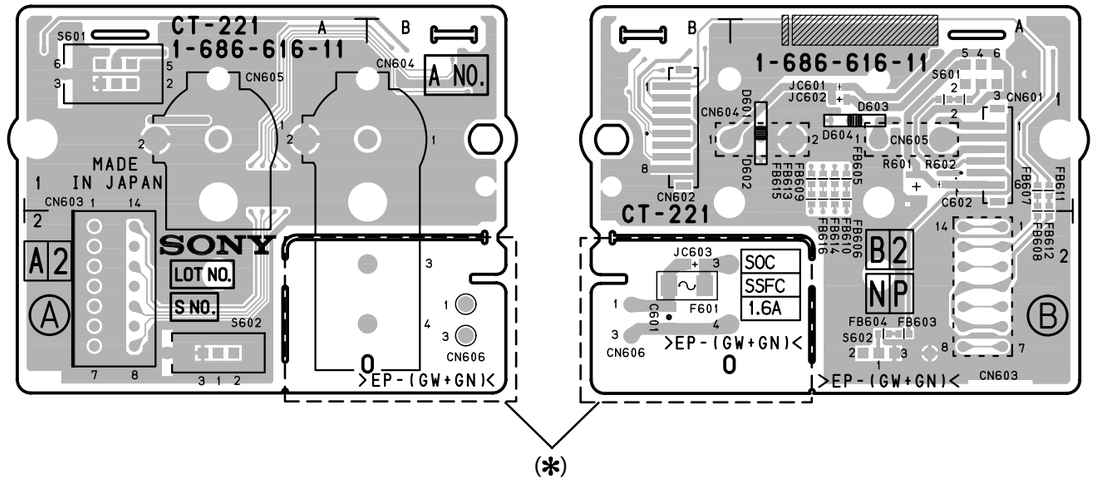
Section 8
Board Layouts



BI-156 -A SIDE-
SUFFIX: -11



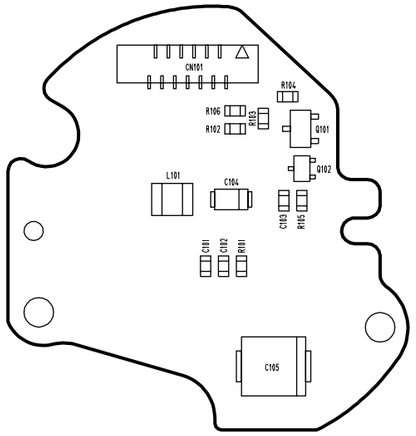
BI-156 -B SIDE-
SUFFIX: -11



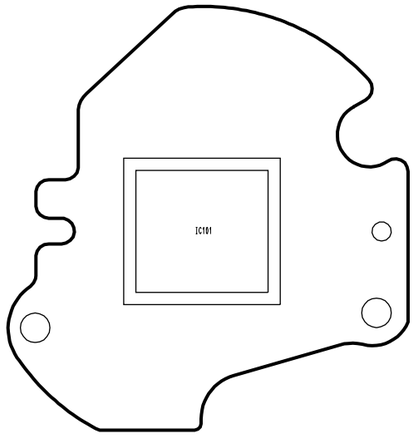
(*) : The portion encircled by a dotted line is not included in the SSC-DC598P.
The portion encircled by a dotted line is included in the SSC-DC593 and SSC-DC593P.

CT-221 -A SIDE-
SUFFIX: -11

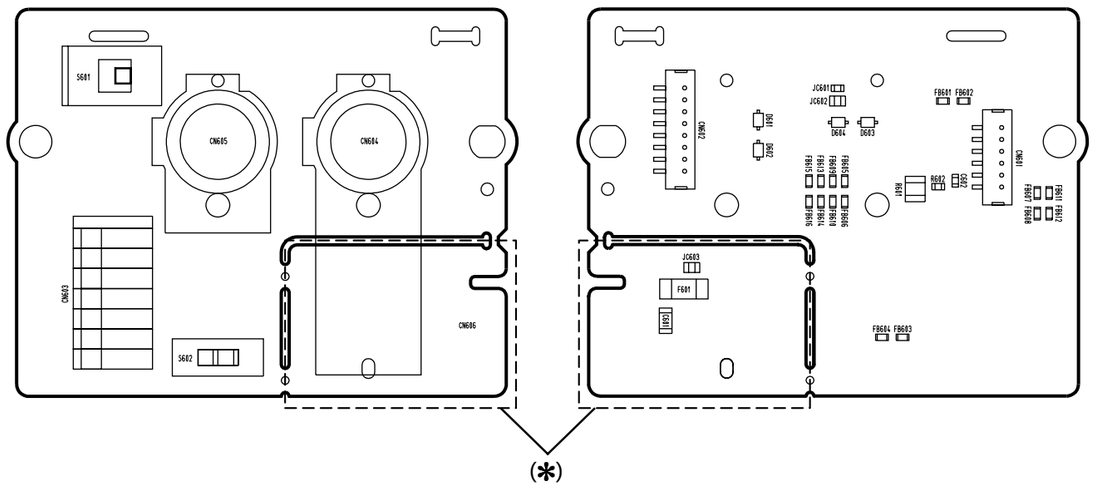
CT-221 -B SIDE-
SUFFIX: -11



BI-156 -A SIDE-
SUFFIX: -11



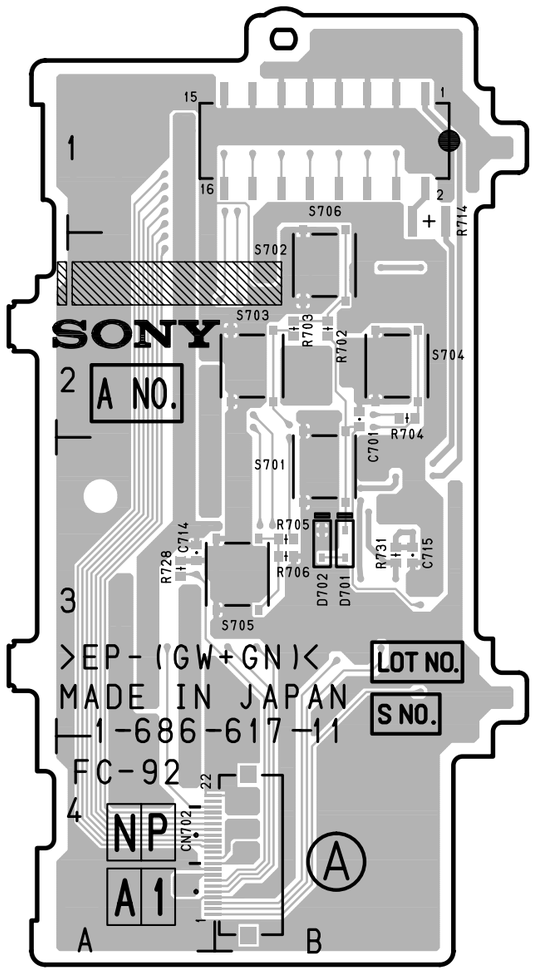
BI-156 -B SIDE-
SUFFIX: -11



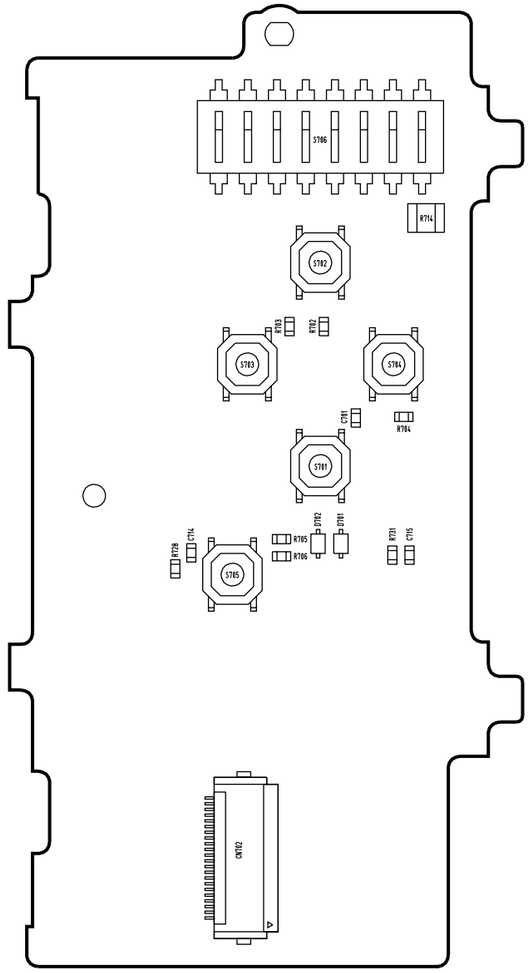
(*) : The portion encircled by a dotted line is not included in the SSC-DC598P.
The portion encircled by a dotted line is included in the SSC-DC593 and SSC-DC593P.

CT-221 -A SIDE-
SUFFIX: -11

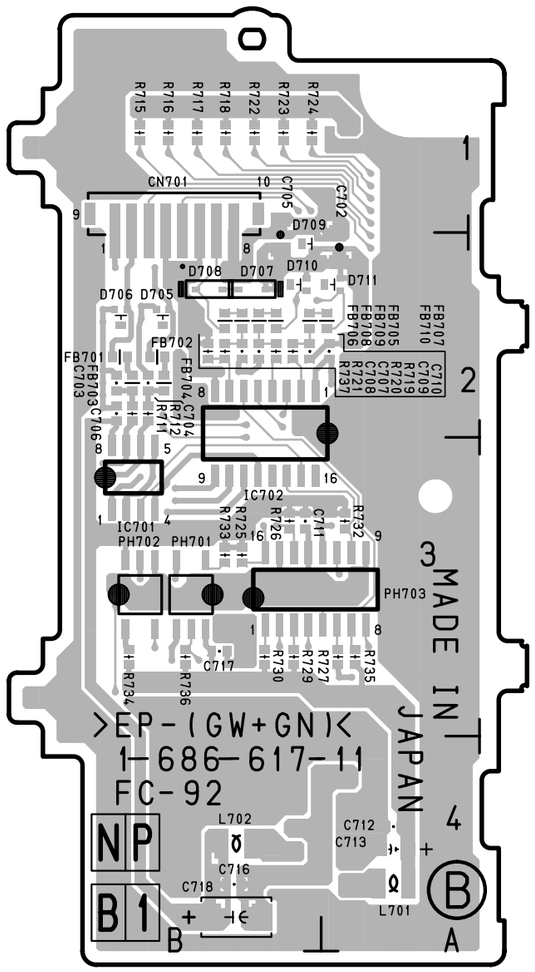
CT-221 -B SIDE-
SUFFIX: -11



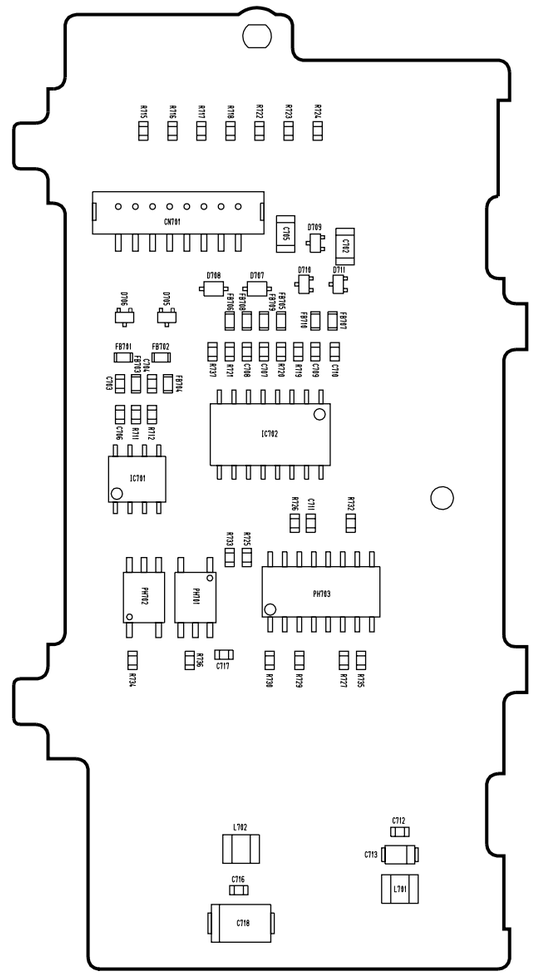
FC-92 -A SIDE-
SUFFIX: -11



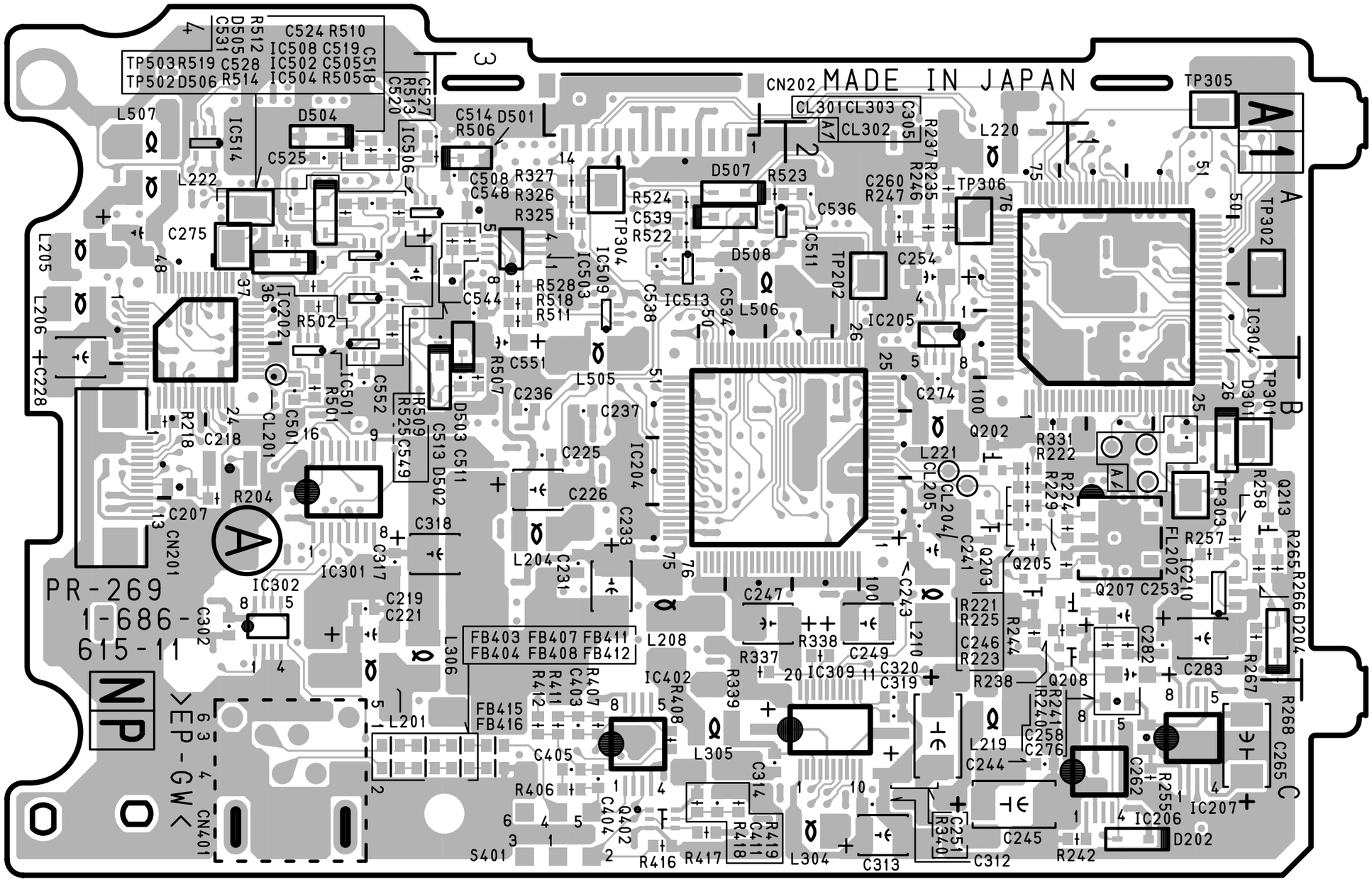
FC-92 -A SIDE-
SUFFIX: -11



FC-92 -B SIDE-
SUFFIX: -11



FC-92 -B SIDE-
SUFFIX: -11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PR-269
1-686-615-11
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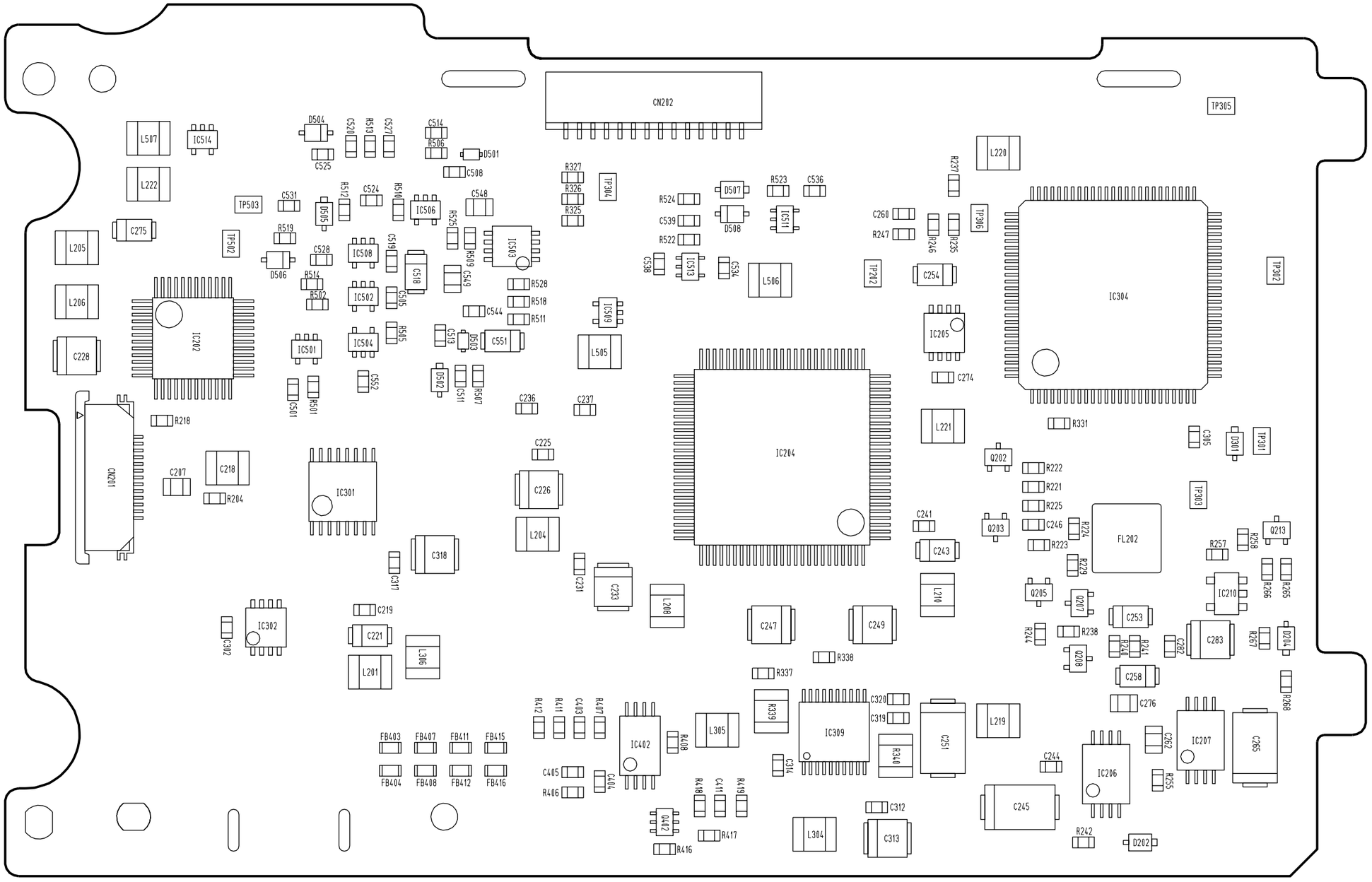
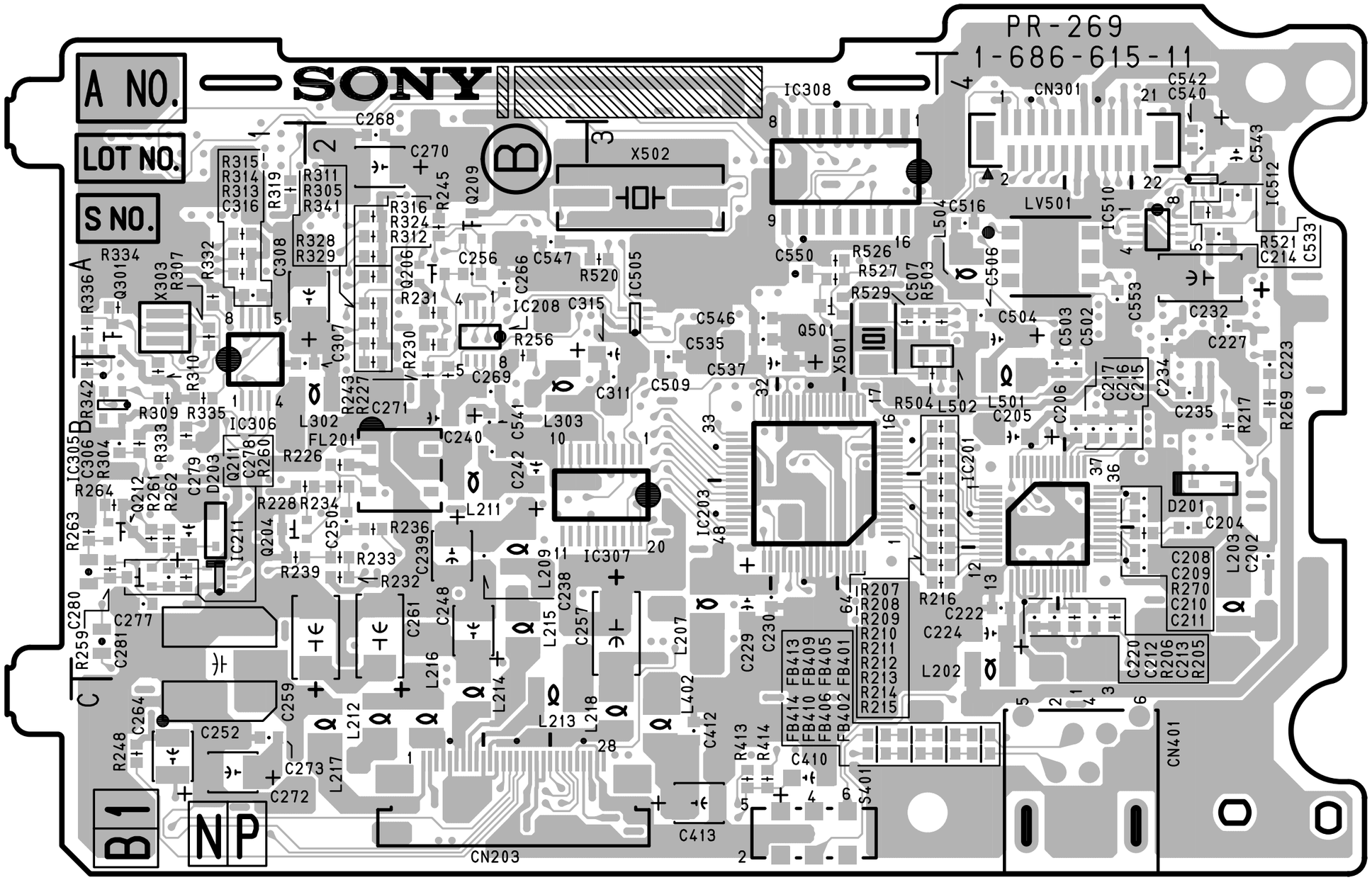
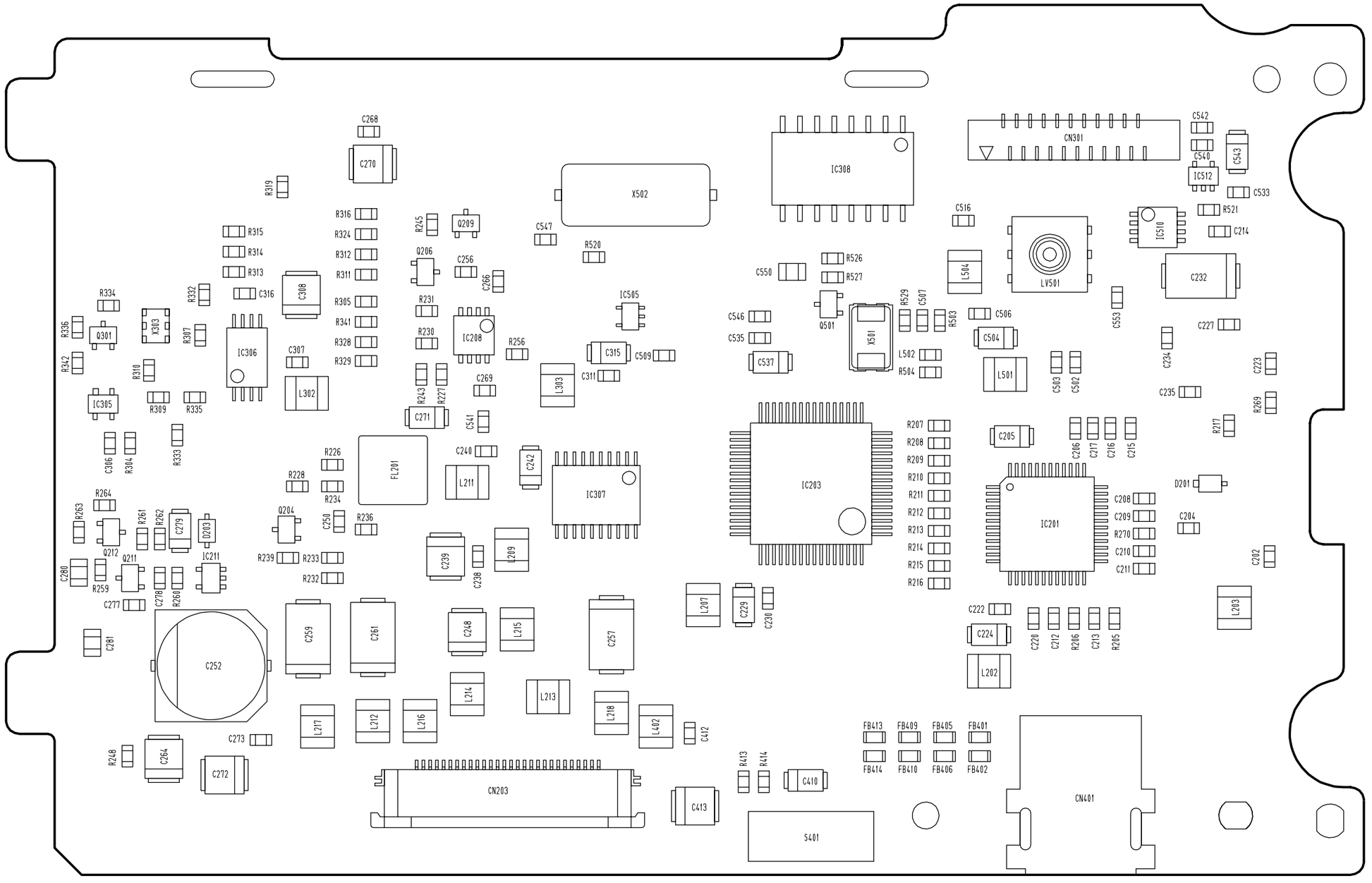


PR-269 -A SIDE-
SUFFIX: -11



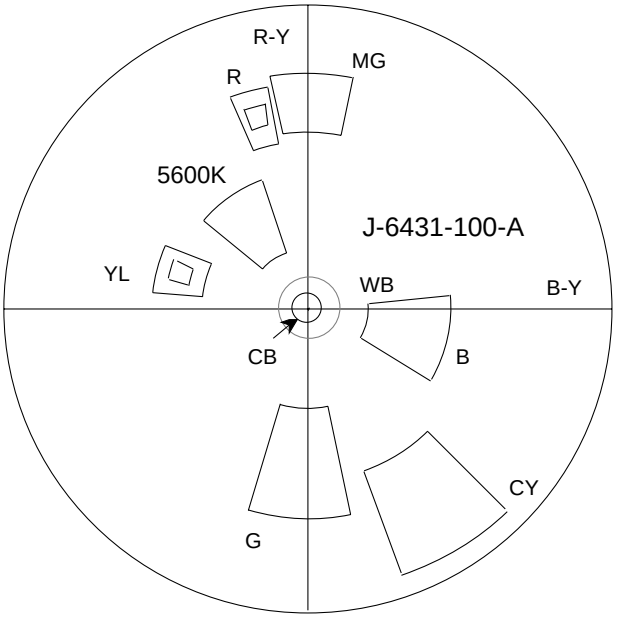
PR-269 -B SIDE-
SUFFIX: -11



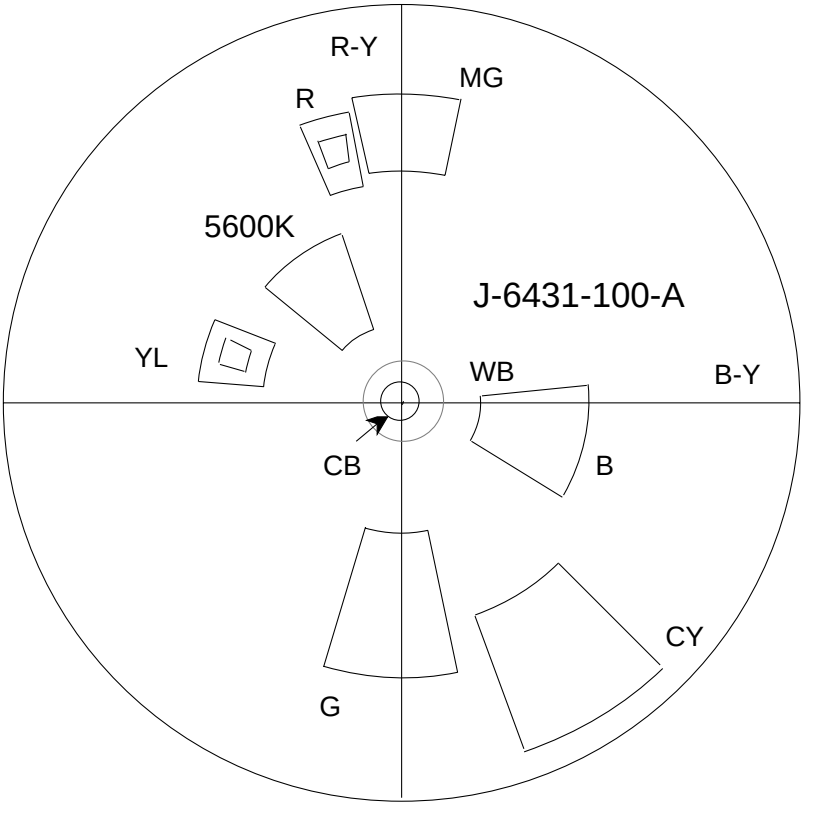
PR-269 -B SIDE-
SUFFIX: -11

VECTOR SCOPE SCALE

DIAMETER 80mm



DIAMETER 106mm



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SSC-DC593P (CE)
SSC-DC598P (CE) E
9-955-395-01

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